CAI IT Staff Augmentation
Managed Service Provider

Sourcewell
Awarded Contract

Sourcewell Cooperative Purchasing Contract 071321-CAI

Job Titles and Descriptions
Updated August 2019

Job Titles and Descriptions

APPLICATION ARCHITECT

The Application Architect (AA) is responsible for designing, developing, and implementing application infrastructure to provide highly-complex, reliable, and scalable applications and systems to meet the organization's objectives and requirements. Applications Architects are familiar with a variety of the application technologies, frameworks, environments, concepts, methodologies, practices and procedures, and rely on experience and judgment to plan and accomplish goals. Application Architects are able to perform a variety of complicated tasks with minimal or no direct supervision. They have proven experience defining systems and application architecture and provide vision, problem anticipation, and problem solving ability to organizations. They consult with the client to define needs or problems, conduct research, perform studies and surveys to obtain data, and analyze problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization.

Skills and Technologies: Could Include: various technologies and roles, including designing, developing, and implementing application infrastructure to provide highly-complex, reliable, and scalable applications and systems to meet the organization's objectives and requirements.

AA1

	• Manages, organizes, and administers systems analysis and preparation of applications and operating systems programming to process data and solve problems.
	• Establishes priorities and schedules, and oversees and reviews work of systems analysis and programming personnel.
	• Reviews feasibility studies and time /cost estimates of new or revised systems.
	• Assists in the development of standards, procedures, and operating systems applications.
	• Possesses a combination of technical training and hands-on expertise.
	• Works with stakeholders and management to ensure projects are completed on time and according to organization standards.
	• Consults with personnel in other information systems groups to coordinate activities.
	• Consults with management to clarify systems and programs intent, identify problems, suggest changes, and determine extent of application systems changes required.
	• Participates in developing a project plan and schedule with key milestones, contingency plans, workflow charts or diagrams, considering factors, such as resource requirements, computer storage capacity and speed, extent of peripheral equipment, and intended use of output data.
	• Analyzes test runs on computer and supervises correction of coded program and input data.
	• Manages the revision of existing programs to increase operating efficiency or adapt to new requirements.
	• Compiles documentation of program development and subsequent revisions.
	• Trains subordinates in systems analysis, feasibility studies, programming, and program coding.
	• Prescribes standards for terms and symbols used to simplify interpretation of programs.
	• Collaborates with computer manufacturers and other users to develop new programming methods.
	• Prepares records and reports.

AA2

Role Description:	All roles specified in AA1 plus the following:
	• Ensures consistency and completeness across data models.
	• Plans and delivers development architecture environments in coordination with the Environmental Support Specialist.
	• Assists in managing and directing team's technical architecture processes.
	• Develops and documents expert practices/ standards.
	• Possesses strong analysis, presentation, documentation, and quality assurance skills.
	• Analyzes, determines, and documents technical requirements and impact analysis for technical and development architectures.
	• Explains defect priorities and enhancement classifications to client.
	• Leads systems analysis for architecture and development of new applications.
	• Establishes development schedule, and allocates work of personnel based on project plans, timelines and budgets.
	• Works with organizational leadership to ensure projects are in line with long-term IT strategies and initiatives.
	• Works with management to articulate systems and programs purpose, identifies problems, suggest changes, and determines required changes to existing applications.
	• Provides mentoring and guidance to agency personnel and leadership when needed.
	• Maintains awareness of new technological developments in industry and processes, and implements concepts appropriately.
	• Leads or participates in setting the service levels for applications.
	• Defines overall system architecture.
	• Provides well-structured work plans which define scope, resources, milestones, quality, risk, tasks, and acceptance criteria.
	• Prepares contingencies, scenarios, scenario plans and action items to resolve issues.
	• Leads efforts in providing technical expertise, guidance, and training to the Application and Test Teams.

APPLICATION DEVELOPER

The Application Developer (AD) is responsible for analysis, design, coding, component and assembly testing of all application code owned by the Application Team. Programmers typically are involved in maintenance (including production support), enhancement and development work. Programmers have a range of skills and knowledge of the technologies used and applications supported by the Application Team. The Application Developer works with the Business Analyst, Application Architect and other Application Development Team members on an as needed basis to ensure that design and code meets customer requirements.

Skills and Technologies: Could include Java, JavaScript, Perl, .NET, VB.NET, ASP.Net, Visual Basic, C#, C++, HTML, CSS, PHP, MySQL, Ruby/Rails, IOS/Swift, Python, and other web development technologies (i.e. bootstrap, AJAX, MVC, Webservices, etc.), Websphere, Weblogic, Content Management Systems (i.e. Joomla, Drupal, WordPress).

AD1

	• Code enhancement and development programs and/or required fixes to production problems using the functional and technical programming standards.
	• Test enhancement and development programs.
	• Participate in structured code reviews / walkthroughs.
	• Execute all required process steps.
	• Create and provide content for operational documentation to Technical Writers.
	• Utilize configuration management tools, design tools, debugging tools, and any other environment specific tools necessary to create, test, and implement an application.
	• Research problems before approaching the Team Lead or Functional Architect for assistance.
	• Limited functional knowledge.
	• Follow quality standards.
	• Support installation of application releases into production as directed.
	• Communicate accurate and useful status updates.
	• Ability to work in a team environment.
	• Complete assigned tasks.
	• Analyze and design enhancements, development programs, and/or required fixes to production problems.
	• Design applications to functional and technical programming standards.
	• Work with Functional Architects to gather and interpret user requirements into design specifications.
	• Develop system specifications and interfaces.
	• Determine time estimates and schedule for work.
	• Moderate functional and process knowledge.
	• Assist in managing and directing Application Team processes.
	• Coordinate work with other software developers on Application Teams.
	• Assist Team Lead or Test Team Lead in monitoring estimated-time-to-complete (ETC) and actuals for assigned tasks.
	• Develop application designs in support of the systems specifications and interfaces, perhaps in conjunction with application or technical architects.
	• Operating System expertise sufficient to perform performance and tuning diagnostics.
	• Work with users to ensure that solutions meet business requirements.
	• Execution of all responsibilities with little direct supervision of Team Lead.
	• Generally aware of new developments in industry and process and has ability to apply them to work as appropriate.
	• Anticipate and resolve issues specific to the team.
	• Determine time estimates and schedule for own work and resolve issues in a timely manner.
	• Identify and track issues, risks and action items.
	• Strong communication skills; both written and spoken.

AD2

Role Description:	All roles specified in AD1 plus the following: • Plan all required process steps. • Review and understand the Application Team's work plan. • Provide status of work to Team Lead. • Anticipate, identify, track and resolve issues and risks affecting own work and work of the Application Team. Develop contingency plans as necessary. • Engage in ongoing process improvement. • Detailed functional and process knowledge.

	• Utilize deep modeling, design and coding skills. • Provide expertise in one or more database environments.

AD3

Role Description:	All roles specified in AD2 plus the following: • Converts scientific, engineering, and other technical problem formulations to formats that can be processed by computer. • Resolves symbolic formulations, prepares flowcharts and block diagrams, and encodes resultant equations for processing by applying extensive knowledge of branch of science, engineering, or advanced mathematics, such as differential equations or numerical analysis, and understanding of capabilities and limitations of computer. • This is a professional level non-supervisory position which may require coordination of programming activities being conducted by the team • Proven track record of hands-on technical design and code work within large complex systems. • Proven hands-on technical work with a variety of technologies. • Demonstrated technical expertise integrating a variety of diverse technical environments and cross-platform technologies.

AD4

Role Description:	All roles specified in AD3 plus the following: • Proven experience mentoring and performing supervisory functions for technical teams. • Able to make best practice recommendations based on past work. • Confers with other business and technical personnel to resolve problems of intent, inaccuracy, or feasibility of computer processing. • Works with necessary personnel to determine if modifications are necessary with interested personnel to determine necessity for modifications or enhancements. • Leverages excellent written and verbal communication skills to develop new business process and programming solutions as directed by business and technical stakeholders. • May coordinate activities of computer programmers.

APPLICATIONS SYSTEM ANALYST

The Application System Analyst (ASA) understands business objectives and problems, identifies alternative solutions, performs studies and cost/benefit analysis of alternatives. The Application System Analyst analyzes user requirements, procedures, and problems to automate processing or to improve existing computer system: They confer with personnel of organizational units involved to analyze current operational procedures, identify problems, and learn specific input and output requirements, such as forms of data input, how data is to be summarized, and formats for reports. The Application System Analyst writes detailed description of user needs, program functions, and steps required to develop or modify computer program. The Application System Analyst reviews computer system capabilities, specifications, and scheduling limitations to determine if requested program or program change is possible within existing system.

Skills and Technologies: Could include various technologies and roles, including prior analysis, requirements gathering and formal modeling experience, but typically also has some prior experience in Programming languages such as JAVA, .NET, COBALT, etc.

ASA1

Role Description:	• Has knowledge of commonly used concepts, practices, and procedures within a particular field. • Relies on instructions and pre-established guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

ASA2

Role Description:	All Roles specified in ASA1 plus the following: • Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. • Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

ASA3

Role Description:	All Roles specified in ASA2 plus the following: • Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected. • Proven experience with complex concepts, practices, and procedures within the IT industry. • Relies on advanced experience and judgment to plan and accomplish goals. • Works independently and cooperatively with management and stakeholders.

APPLICATIONS TECHNICAL SPECIALIST (ATS)

The Application Technical Specialist (ATS) is a senior level resource with specialized knowledge and experience in Specific Technologies. The Technical Specialist has an overall knowledge and understanding of application development and architecture that serves as a strong base for technical expertise in a specific product or program.

Skills and Technologies: Could include advanced skills in technologies such as SharePoint, SAP, Curam, Service Now, HL7, PEGA, Kronos etc.

ATA1

Role Description:	• Demonstrates expertise in conveying technical and functional concepts for a specific technical specialty. • Identifies improvements to project standards to achieve high quality services/ products. This is a professional position which may require subject matter expertise consistent with demanding and rare technological skills. • May require coordination of programming activities being conducted by the application development team • Confers with other business and technical personnel to resolve problems of intent, inaccuracy, or feasibility of computer processing and project design. • Works with necessary personnel to determine if modifications are necessary with interested personnel to determine necessity for modifications or enhancements.

	• Leverages excellent written and verbal communication skills to develop new business process and programming solutions as directed by business and technical stakeholders. • May coordinate activities of application developers. • Able to identify best practices and standards for the use of the product.

ATA2

Role Description:	All roles specified in ATS1 plus the following: • Proven track record of hands-on technical design and code work within large complex systems. • Proven hands-on technical work with a variety of technologies. • Demonstrated technical expertise integrating a variety of diverse technical environments and cross-platform technologies. • Delivers support and design for industry specific applications that require integration with statewide systems or applications. • Interacts with executive level business users or technical experts. • Advanced experience in the required technical subject matter. • May function as a niche technical SME (Subject Matter Expert).

ATA3

Role Description:	All roles specified in ATS2 plus the following: • Proven experience mentoring and performing supervisory functions for technical teams. • Has advanced experience in the required technical subject matter

ATA4

Role Description:	All roles specified in ATS3 plus the following: • Has proven experience across large and complex implementations and systems. • Difference between ATS4 and ATS3 can be the complexity and size/scale of the project or use of rare/advanced technology

BUSINESS ANALYST (BA)

The Business Analyst (BA) is responsible for the set of tasks and techniques used to work as a liaison among stakeholders in order to understand the structure, policies, and operations of an organization, and to recommend solutions that enable the organization to achieve its goals. A Business Analyst primarily reviews, analyzes, and evaluates business systems and user needs.

Skills and Technologies: This role addresses various functional roles that center around requirements gathering, definition and process analysis. May have experience in projects that include: application development, project management, formal process analysis and product evaluation.

BA1

Role Description:	• Experience conducting Facilitated Workshops for requirements analysis. • Experience creating workflows using formal notation such as the Business Process Modeling Notation (BPMN). • Knowledge of formal requirements gathering methodologies. • Experience developing Business Requirements - project initiation document, what the needed achievements will be, and the quality measures.

	• Experience developing Functional requirements - describe what the system, process, or product/service must do in order to fulfill the business requirements. • Experience developing User (stakeholder) requirements - are a very important part of the deliverables, the needs of the stakeholders will have to be correctly interpreted. This deliverable can also reflect how the product will be designed, developed, and define how test cases must be formulated. • Experience developing Quality-of-service (non-functional) requirements - are requirements that do not perform a specific function for the business requirement but are needed to support the functionality. For example: performance, scalability, quality of service (QoS), security and usability. • Experience developing Report Specifications - define the purpose of a report, its justification, attributes and columns, owners and runtime parameters. • Experience developing Requirements Traceability Matrix - a cross matrix for recording the requirements through each stage of the requirements gathering process. • Strong organization and writing skills. Experienced developing graphic representations of complex business processes.

BA2

Role Description:	All roles specified in BA1 plus additional work experience and the following • Additional responsibilities include UML Modeling, input into product design and decisions possibly related to software/product selection.

BA3

Role Description:	All roles specified in BA2 plus additional work experience, job knowledge • Experience in a leadership role as a Business Analyst • Functional experience as a project manager • Could incorporate IIBA or similar certifications • Six Sigma or PMP certifications (or other process certification) • Could include Technical skills focusing on more Systems Analysis roles • Experience in a leadership role as a Business Analyst • Functional experience as a project manager

BUSINESS SUBJECT MATTER EXPERT - EXECUTIVE (SMEE)

The Senior Business Subject Matter Expert Executive (SMEE) brings proven experience from related businesses or organizations as well as system integration and technology experience. They consult with the client to define needs or problems, conduct research, perform studies and surveys to obtain data, and analyze problems to advise and make recommendations on business and technical solutions based on hands-on experience solving similar business problems. They are able to utilize knowledge of theory, principles, or technology of specific discipline or field of specialization.

Skills and Technologies: Could include: various technologies and roles, including SME in product and software or functional areas. This role encompasses working with Executive/Director/Commissioner level and stakeholders outside of a department or agency.

SMEE1

Role Description:	• Consult with executive-level stakeholders to define business need or problem; conducts research, performs studies and surveys to obtain data; and analyzes

	•	problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization.
	•	Advise client or department heads on alternate methods of solving need or problem, or recommends specific solution.
	•	Require experience providing consulting services to governmental entities.

BUSINESS SUBJECT MATTER EXPERT - MANAGEMENT (SMEM)

The Senior Business Subject Matter Expert – Management (SMEM) brings proven experience from related businesses or organizations as well as system integration and technology experience. They consult with the client to define needs or problems, conduct research, perform studies and surveys to obtain data, and analyze problems to advise and make recommendations on business and technical solutions based on hands-on experience solving similar business problems. They are able to utilize knowledge of theory, principles, or technology of specific discipline or field of specialization.

Skills and Technologies: Could include various technologies and roles, including SME in product and software or functional areas. This role encompasses working with Mid and Senior management and stakeholders in an organization.

SMEM1

Role Description:	•	Consult with executive-level stakeholders to define business need or problem; conducts research, performs studies and surveys to obtain data; and analyzes problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization.
	•	Advise client or department heads on alternate methods of solving need or problem, or recommends specific solution.
	•	Require experience providing consulting services to governmental entities.

CLOUD ADMINISTRATOR (CAM)

Cloud Administrator (CAM) brings expertise in the most senior capacities in supporting and maintaining Cloud-based architecture in both implementation and post-implementation roles. An ideal person in this role will have worked with a variety of programming languages and infrastructure platforms. The role could involve working with outside vendors tasked with implementation of a new cloud-based environment and transition to administrate after the completion of implementation. This can include support of SaaS and SOA solutions.

Skills and Technologies: Could include: various technologies and roles, including Architecture supporting AWS, ServiceNow, Salesforce, SOA, SAAS, Ansible, Team City, Octopus, Salt, Puppet, Rundeck, MongoDB, Linux,

CAM1

Role Description:	•	System troubleshooting and problem solving across platform and application domains - expected to participate in on-call escalations to troubleshoot customer-facing issues.
	•	Create/maintain monitoring solutions and instrument applications to provide insights into performance and to understand emerging issues.
	•	Conduct routine security and software updates

CAM2

Role Description:	All roles specified in CAM1 plus the following:
	• Assist implementation teams in adaptation and integration of Cloud Architecture into existing environment.
	• Actively participate in high level team activities such as suggesting architectural improvements, recommending process improvements and conducting tool evaluations.
	• Identify and implement improvements to the platform and processes around release and maintenance.
	• Communicate effectively with customers and software / hardware suppliers supporting the State as appropriate.
	• Identify and track issues.

CAM3

Role Description:	All roles specified in CAM2 plus the following:
	• Prior development of full end to end Cloud solutions.
	• Prior enterprise wide implementation of SaaS solutions

CLOUD ARCHITECT (CAR)

The Cloud Architect (CAR) brings expertise as an architect and designer and is an evangelist for Cloud services and architectures. A Cloud Architect has expert knowledge in Infrastructure as a Service (LaaS), Platform as a Service (PaaS) and Software as a Service (SaaS), Service Oriented Architecture (SOA) offerings from the major Cloud Service Providers. This resource designs secure architecture solutions that decouple legacy corporate capabilities into elastic, scalable container based services. The role could involve working with outside vendors to implement a solution. This Architect will communicate and collaborate continuously with customer to freely design best of breed architectures using public, private and hybrid cloud solutions.

Skills and Technologies: Could include various technologies and roles, including AWS, ServiceNow, Salesforce, SOA, SAAS, Pivotal Cloud Foundry, Docker, Kubernetes, Rancher and Mesosphere JIRA, GitHub, Stash, Redmine Rocket Chat, Jenkins, Eclipse, Intelliu, Nexus and Bamboo, Jenkins, HP Fortify, Serenity, Swagger, Cucumber, Selenium, SonarQube, JUNite, Pyunit, Open SCAP and Sensu, Chef, Puppet, CFEngine, Ansible, Fabric, and GIT, GitHub and Git Lab, Lucene and Elasticsearch,Oracle, MS SQL, Postgres SQL, AWS RDS, Django, Express.js, Cassandra, MongoDB, AWS DynamoDB

CAR1

Role Description:	• Knowledge and experience with some of the major CSPs (AWS, Azure, IBM & Google).
	• Experience designing IaaS, PaaS and SaaS architectures.
	• Knowledge of Service Registries and Cloud brokers.
	• Understands Stateful and Stateless services.
	• Knowledge of web services technologies- Restful services.
	• Understanding of distributed systems, databases and search systems.
	• Has architected J2EE Platforms: JBOSS, WebLogic and Apache Tomcat and similar technologies.

CAR2

Role Description:	All roles specified in CAR1 plus the following: • Experience designing secure scalable, elastic architectures. • Experience architecting in enterprises using Agile methodologies. • Understands decoupled and micro services architectures.

CAR3

Role Description:	All roles specified in CAR2 plus the following: • Strong focus on business outcomes. • Comfort with collaboration, open communication and reaching across functional borders.

CLOUD DEVELOPER (CD)

The Cloud Developer (CD) brings expertise as a programmer and designer for Cloud Services. A Cloud Developer has experience implementing and developing applications to interface with Service Oriented Architecture (SOA) and other offerings from the major Cloud Service Providers. Cloud Developers are responsible for analysis, design, coding, of all application code. Cloud Developers typically are involved in maintenance, enhancement and development work. Cloud Developers have a range of skills and knowledge of the technologies used and applications supported by the Application Team. The Developer works with the Business Analyst, Application Architect and other Application Development Team members on an as-needed basis to ensure that design and code meets customer requirements. May also need to work with SaaS and Cloud service providers.

Skills and Technologies: Could include various technologies and roles, including Cloud development involving some of the following technologies: J2EE, Pivotal Cloud Foundry, Docker, Kubernetes, Rancher and Mesosphere JIRA, GitHub, Stash, Redmine Rocket Chat, Jenkins, Eclipse, Intelliu, Nexus and Bamboo, Jenkins, HP Fortify, Serenity, Swagger, Cucumber, Selenium, SonarQube, JUNite, Pyunit, Open SCAP and Sensu, Chef, Puppet, CFEngine, Ansible, Fabric, and GIT, GitHub and Git Lab, Lucene and Elasticsearch,Oracle, MS SQL, Postgres SQL, AWS RDS, Django, Express.js, Cassandra, MongoDB, AWS DynamoDB

CD1

	• Code enhancement and development programs and/or required fixes to production problems using the functional and technical programming standards. • Test enhancement and development programs. • Participate in structured code reviews / walkthroughs. • Execute all required process steps. • Create and provide content for operational documentation to Technical Writers. • Utilize configuration management tools, design tools, debugging tools, and any other environment specific tools necessary to create, test, and implement an application. • Research problems before approaching the Team Lead or Functional Architect for assistance. • Limited functional knowledge. • Follow quality standards. • Support installation of application releases into production as directed. • Communicate accurate and useful status updates. • Ability to work in a team environment.

	• Analyze and design enhancements, development programs, and/or required fixes to production problems. • Design applications to functional and technical programming standards. • Work with Architects to gather and interpret user requirements into design specifications. • Develop system specifications and interfaces. • Determine time estimates and schedule for work. • Moderate functional and process knowledge. • Assist in managing and directing Application Team processes. • Coordinate work with other software developers on Application Teams. • Assist Team Lead or Test Team Lead in monitoring estimated-time-to-complete (ETC Knowledge and experience with some of the major CSPs (AWS, Azure, IBM & Google). • Knowledge of Service Registries and Cloud brokers. • Understands Stateful and Stateless services. • Knowledge of web services technologies. • Understanding of distributed systems, databases and search systems.

CD2

Role Description:	All roles specified in CD1 plus the following: • Experience with secure scalable, elastic architectures. • Experience in enterprises using Agile methodologies. • Plan all required process steps. • Review and understand the Application Team's work plan. • Provide status of work to Team Lead. • Anticipate, identify, track and resolve issues and risks affecting own work and work of the Application Team. Develop contingency plans as necessary. • Engage in ongoing process improvement. • Detailed functional and process knowledge. • Utilize deep modeling, design and coding skills. • Provide expertise in one or more database environments.

CD3

Role Description:	All roles specified in CD2 plus the following: • Stronger awareness of business outcomes • Experience designing IaaS, PaaS and SaaS architectures. • Comfort with collaboration, open communication and reaching across functional borders. • This is a professional level non-supervisory position

CD4

Role Description:	All roles specified in CD3 plus the following: • Experience implementing more than one enterprise wide cloud solution and directing a team of developers.

COMPUTER OPERATOR (CO)

Computer Operator (CO) monitors and controls computers and peripheral data processing equipment. Enters commands using computer terminal and manages controls on computer and peripheral equipment. Monitors the

system for failure or errors and responds by addressing issues or notifying a supervisor. Loads peripheral equipment such as tapes and printer paper for operating runs. Relies on established guidelines and instructions to perform daily job functions. Works under immediate supervision.

Skills and Technologies: Could include: various technologies and roles, including Mainframe, COBOL, tape archiving, JCL, IDMS, MVS/TSO, ISPF, NOC monitoring software.

CO1

Role Description:	• Prepares and operates mainframe and client/server computer systems and peripheral equipment to support day-to-day business operation. • Detects and troubleshoots network, computer and peripheral equipment malfunctions. Takes corrective action or escalate problem as required. • Prepares reports and logs detailing all shift activity. • Interprets and executes detailed standard operating procedures written for the computer operations environment. • Possesses a detailed knowledge of Data Center operational requirements and standard operating procedures. • Effectively communicates and interfaces with management and technical staff, and other technical and business contacts, as required. • Works under the direction of a Lead Computer Operator or Operator Services Supervisor.

CO2

Role Description:	All roles specified in CO1 plus the following: • Works independently. • Communicates status to managers and project sponsors. • Assists in developing standards and direction for systems. • Completes tasks as assigned by a Lead Computer Operator, or Data Center & Operations Team Management. • Analyzes problems quickly and adopt an effective course of action. • Effectively communicates with other staff as well as the customer. • Anticipates patterns and changes to ensure smooth operation using advanced expertise and knowledge. • Operates multiple systems and computers for enterprise-wide systems. • Operates complex ERP platforms to ensure quality of service. • May contribute as expert in operations on retirement of legacy mainframe/midrange.

CURAM BUSINESS ANALYST (CBA)

The Curam Business Analyst (CBA) is responsible for the set of tasks and techniques used to work as a liaison among stakeholders in order to understand the structure, policies, and operations of an organization, and to recommend solutions that enable the organization to achieve its goals. A Business Analyst primarily reviews, analyzes, and evaluates business systems and user needs. A Curam Business Analyst brings expertise as a designer for IBM Curam Components.

Skills and Technologies: Could include: various technologies and roles, including analysis and requirements gathering as well as some project management roles related to Curam Business Application Suite

CBA1

Role Description:	• Identifying and documenting business processes, issues, value levers, metrics, and capabilities • Identifying approaches to satisfy business requirements by conducting detailed analysis and technical design of one or more program areas, in support of implementation of a comprehensive case management solution utilizing the Cúram Business Application Suite • Utilizing knowledge of the Cúram software product to: conduct and document gap analysis, identify evidence needed to support requirements, develop business and functional requirements specifications, assist with designing the business solution, and assist with user acceptance testing • Interpreting technical concepts to both technical personnel and non-IT business users and summarize and convey technical issues and problems identified

CBA2

Role Description:	All roles specified in CBA1 plus the following: • Managing IBM Cúram business analysis work or projects with distinct deliverables to a solution • Conducting industry, competitive and State analyses (strategic, financial, operational), business case development • Supporting required system go-live activities, including conversion, support desk, site support, training delivery, logistics management, etc. • Performing PMO activities related to project time tracking, work plan updates, status reporting, service metric reporting, and related project administration tasks

CURAM ARCHITECT (CUA)

The Curam Architect (CAR) brings expertise as an architect for IBM Curam Components.
Skills and Technologies: Could include various technologies and roles including Guidance and development of Curam Artifacts including Curam Rose Meta-Model, UIM Screen Definitions, Message/Code Table, Data Manager, Curam Server, Workstation Database

CUA1

Role Description:	• Responsibility for translating the business and functional requirements into specific system, application and process designs • Acting as the technical reference for Cúram-related design, development, testing, and deployment knowledge while providing technical input to estimate the functional scope Guidance during quality reviews of project deliverables • Guidance and / or development of Cúram artifacts including: Cúram Rose Meta-model, design documents, Java Server code, UIM screen definitions, Message / Code Table / Data Manager files, Cúram Server, Workstation database and Coding documentation

CUA2

Role Description:	All roles specified in CMA1 plus the following: • Defining the architecture for use in a large scale Cúram implementation and guide implementation in the correct use of the Cúram Framework • Functions a subject matter expert with prior successful implementations in governmental institutions.

CURAM PROGRAMMER (CUP)

The Curam Programmer (CUP) brings expertise as a programmer and designer for IBM Curam Components.

Skills and Technologies: Could include various technologies and roles, including Programming, Design and Development of COTS, Curam Framework Components, IEG2, CER, XML, CEF, Subversion, Webshpere, SQL Server

CUP1

Role Description:	• Development and enhancement of Cúram application based on established design specifications • Business and workflow process modeling, and business reengineering using Cúram • Implementing configuration changes to Cúram and other applications to meet both functional and technical requirements • Unit testing applications and developing system and user documentation • Long-term support of Cúram infrastructure, technologies, and functionality, including services to upgrade system configuration and functionality due to an Cúram system or release upgrade • Utilization of relevant skills, including the use of COTS Cúram Framework Components, Cúram Intelligent Evidence Gathering (IEG2), Cúram Express Rules (CER), Oracle, use of XML technology in Cúram, Cúram Evidence Framework, Subversion, and WebSphere

CUP2

Role Description:	All roles specified in CUP1 plus the following: • Point of contact on site for development-related questions and issues that arise which cannot be addressed by a technical consultant • Leading functional and detailed requirement development, code development, Joint Application Development (JAD) sessions, functional and detailed design, and life cycle management • Development of recommendations to effectively report data of mid to high level complexity related to varied business metrics and for designing, coding, testing, debugging, and documenting reporting solutions, while enhancing existing reports to ensure that solutions continue to meet business needs

DATABASE ADMINISTRATOR (DBA)

The Database Administrator (DBA) is responsible for data analysis and database management. Database Administrators typically are involved in maintenance, enhancement, designing of data dictionaries, physical and logical database models, and performance tuning. Database Administrators have a range of skills and

knowledge of the utilities and production tools used for data storage management to support the Application Team.

Skills and Technologies: Could include various technologies and roles, including Oracle, SQL Server, DB2 and other Mainframe technologies related to Database administration and management.

DBA1

Role Description:	- Skilled data dictionary analysis and design and data model analysis design. - Maintain central data repository. - Experience and knowledge in supporting application system development life cycle. - Responsible for data dictionary backup and recovery. - Responsible for definition of standards of data dictionaries. May program dictionary analysis and maintenance software. - Perform performance tuning. - Monitor database performance and space requirements. - Schedule and monitor end of day data warehousing jobs. - Assist in coordinating software releases. - Communicate accurate and useful status updates. - Manage and report time spent on all work activities. - Follow quality standards. - Ability to work in a team environment. - Strong communication skills; both written and spoken.

DBA2

Role Description:	All roles specified in DBA1 plus the following: - Business systems analysis and design experience. - Logical data modeling techniques. - Production environment Tools/Utilities. - Knowledgeable in data analysis and database management techniques. - Execution of all responsibilities with little direct supervision of Team Lead. - Administration and scripting experience in relative platform. - Supervise performance tuning. - Author shell scripts to perform back up, restore, and monitoring tasks. - Anticipate and resolve issues specific to the team. - Determine time estimates and schedule for own work and resolve issues in a timely manner. - Identify and track issues, risks and action items.

DBA3

Role Description:	All roles specified in DBA2 plus the following: - Highly skilled at database design, installations, conversions. - Responsible for database backup and recovery procedures, access security and database integrity, physical data storage design and data storage management. - Participates in Database Management System selection and maintains database performance. - Expertise in specific Database Management Systems. - Knowledge of various Database Management System products. - Provide status of work to Project Team Lead.

	• Engage in ongoing process improvement.

DATABASE ARCHITECT (DA)

The Database Architect (DA) is responsible for designing, developing, and implementing infrastructure to provide highly-complex, reliable, and scalable databases to meet the organization's objectives and requirements. The Database Architect is familiar with a variety of the database technologies, concepts, methodologies, practices, and procedures and relies on experience and judgment to plan and accomplish goals. The Database Architect is able to perform a variety of complicated tasks with minimal or no direct supervision. The Database Architect assists in defining system and application architecture and provides vision, problem anticipation, and problem solving ability to an organization. The Database Architect consults with the client to define needs or issues, conduct research, perform studies and surveys to obtain data, and analyze problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization.

Skills and Technologies: Could include: various technologies and roles, including database systems of any type and size. Database Architects can be used for the planning, implementation, migration, design or retirement of various systems.

DA1

Role Description:	• Possess extensive knowledge of specific database systems, and is capable of hands-on work in all phases of database design and management.
	• Design, develop, and implement infrastructure to provide highly-complex, reliable, and scalable database to meet the organization's objectives and requirements.
	• Analyze organization's business requirements for database design, and implements changes to database as required.
	• Perform systems analysis on database, and resolves performance, capacity, and replication issues as necessary.
	• Provide detailed design and specification documentation, including flowcharts, for all aspects of the database.
	• Work with database analysts to develop methodologies, report views, queries, and table replications.
	• Ensure that all the data is in the proper format.
	• Participate in the identification, prioritization, and development of technical initiatives and strategies.
	• Develop and maintain database standards and naming conventions.
	• Keep up-to-date on emerging database architectures, technologies, and methodologies, and attends training classes as necessary.

DA2

Role Description:	All roles specified in DA1 plus the following:
	• Possess extensive knowledge of multiple types of database systems, and is capable of hands-on work in all phases of database design and management.
	• Work with -wide, complex systems.
	• Maintain specific capabilities regarding best practice and design of complex systems.
	• Design systems involving multiple agencies for integrated efforts.
	• May be involved in projects involving database resources from multiple agencies or governmental institutions.
	• May manage teams of developers.
	• Ability to interact with Executive level sponsors and external experts.

DATA WAREHOUSING SPECIALIST (DWS)

The Data Warehouse Specialist (DWS) designs, implements and supports data warehousing initiatives. This individual is a senior level resource that is responsible for aspects of the Data Warehousing arena that include architecture, analysis, design and implementation of Business Intelligence, Data Warehousing and Data Mart initiatives within a smaller group or . The Data Warehouse Specialist could contribute by defining system and application architecture, provides vision, problem anticipation, and problem solving ability to an organization. This resource could also code, develop and design. Often, a Data Warehouse Specialist will consult with the client to define needs or issues, conduct research, perform studies and surveys to obtain data, and analyze problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization.

Skills and Technologies: Could include: various technologies and roles, including Data Warehouses and Data Marts. Star Schema, Snowflake design methodologies, SQL Server, Oracle and other BI systems from Cognos, Hyperion, SSRS/SSAS, Actuate, SAS, and many more.

DWS1

Role Description:	- Implements business rules via stored procedures, middleware, or other technologies. Defines user interfaces and functional specifications. Responsible for verifying accuracy of data, and the maintenance and support of the data warehouse - Knowledge of data warehouse end-to-end implementation processes, from business requirement logical modeling, physical database design, ETL, end-user tools, database, SQL, performance tuning. - Experience in data warehouse design and data modeling (both relational and dimensional) and development and maintenance of multi-dimensional data models. - Development experience in implementation of data warehousing utilizing RDBMS. - Expertise in SQL and proficiency in database tuning techniques.

DWS2

Role Description:	All roles specified in DWS1 plus the following: - Setting or enforcing standards and overall architecture for data warehouse systems. - Demonstrated problem resolution skills with team of persons, and strong leadership with implementation team - Understanding of data warehouse Metadata concepts, tools and different data warehouse methodologies. - Responsible for the ongoing architecture and design of the data warehouse, data mart, and reporting environments.

DWS3

Role Description:	All roles specified in DWS2 plus the following: - Develop strategies for flexibility and scalability, and define the future technical architecture direction for the business intelligence reporting physical environment. - Responsible for proper selection of appropriate hardware, software, tools and system lifecycle techniques for the different components of the end-to-end data warehouse architecture including ETL, metadata, data profiling software, database platform, performance monitoring, reporting and analytic tools.

	• Defining and documenting the technical architecture of the data warehouse, including the physical components and their functionality. • Monitoring the data warehousing industry and assisting in establishing the organization's data warehousing strategy and section of strategic warehousing tools and techniques. • Ensuring compatibility of the different components of the DW architecture and ensuring alignment with broader IT strategies and goals. • Ability to educate the project teams on the standards and architecture of each component of the data warehouse architecture. • Very strong written and oral communication skills, including some presentation skills

DESKTOP SUPPORT SPECIALIST (DSS)

The Desktop Support Specialist (DSS) supports in-house teams and responds in person to helpdesk tickets.

Skills and Technologies: Could include various technologies and roles, including PC/laptop break/fix, HW/SW installation and configuration, scripting (i.e. PERL, SHELL).

DSS1

Role Description:	• Responds to help desk tickets. • Works with vendor support contacts to resolve technical problems with desktop computing equipment and software. • Ensures desktop computers interconnect seamlessly with diverse systems including associated validation systems, file servers, email servers, computer conferencing systems, application servers and administrative systems. • Builds and configure new user workstation equipment set (PC, desktop image, phone, peripherals, software, user accounts). • Troubleshoots basic network, software, and printing problems.

DSS2

Role Description:	• All roles specified in DSS1 plus the following: • Assesses functional needs to determine specifications for purchases • Orders computer supplies. • Works with vendors on supply issues

DSS3

Role Description:	All roles specified in DSS2 plus the following: • Assumes team leadership responsibilities. • Mentors junior team members. • Possesses extensive networking knowledge. • Works with complex systems or custom hardware.

DEVELOPMENT TEAM LEAD (DTL)

The Development Team Lead (DTL) manages an Application Team to deliver services according to defined service level commitments owned by the Application Team. The Development Team Lead coordinates resources and work to deliver solutions to customers on time and within budget. The Development Team Lead is assigned responsibility and accountability for overseeing the successful completion of all work assigned to the Application Team. The Development Team Lead is a process expert within the Application Team, understanding

the software development / maintenance processes and verifying process conformance. The Development Team Lead will monitor stability of production applications owned by the Application Team. The Development Team Lead assists Application Team members in development activities and reviews tasks as required. The Development Team Lead manages and updates progress towards Application Team objectives, assists Application Team members in resolving problems, and engages in personnel management and guidance to Application Team members. The Development Team Lead fosters a positive work environment by mentoring, supporting, and committing to the professional development of Application Team members. The Development Team Lead reports to the Group Lead or Program Manager, as appropriate.

Skills and Technologies: Could include various technologies and roles, including Java, JavaScript, Perl, .NET, VB.NET, ASP.Net, Visual Basic, C#, C++, HTML, CSS, PHP, MySQL, Ruby/Rails, IOS/Swift, Python, and other web development technologies (i.e. bootstrap, AJAX, MVC, Webservices, etc.), Websphere, Weblogic , other types of applications and servers. It also may include experience in Project Management or similar discipline.

DTL1

Role Description:	- Monitor stability of production applications owned by Application Team. - Prepare estimates for maintenance and enhancement of existing applications and development of new applications. - Perform detailed reviews of interim and final tasks as appropriate. - Process work requests; review, prioritize, and package. - Manage and review tasks of suppliers and other interfaces to the Application Team. - Conduct structured walk-throughs or inspections; manage issues to closure. - Develop and manage short and long-term plans and schedules. - Direct the development of accurate estimates for Application Team activities as required. - Balance workload with Application Teams capacity by managing the Application Teams activities according to schedule. - Manage the accomplishment of delivery metrics to support contractual obligations in the areas of service delivery and on time performance commitments and productivity improvement. - Ensure work remains within the agreed scope. - Track work plan baseline against results. - Coordinate/communicate with Group Leads and/or Program Manager to ensure initiatives are in accordance with agreed customer commitments. - Proactively identify and manage issues/risks affecting the project. - Communicate accurate and useful status to Group Lead and other management on a timely basis. - Identify and initiate continuous improvements. - Instill commitment to quality, customer service, ownership, and teamwork. - Conduct post project wrap-up sessions. - Monitor and measure maintenance and development process effectiveness. - Ensure that defined processes are followed. - Manage expectations of the Application Teams internal and external customers. - Facilitate communication and knowledge sharing within the Application Teams. - Maintain awareness of new developments in industry and processes and apply as appropriate. - Develop and deepen understanding of system business requirements supported by the Application Team. - Clearly Communicate the Application Team goals, organizational philosophies, and policies and procedures to the Application Teams. - Conduct structured walk-throughs or inspections; manage issues to closure.

	• Oversee the resolution of high severity production problems. • Manage and direct Application Team activities employing appropriate program management and planning principles. • Coordinate work with other Team Leads as appropriate. • Coordinate and procure the required skills and techniques required by the Application Team.

ENTERPRISE ARCHITECT (ET)

The Enterprise Architect (ET) works across Application Development, Service Delivery and Infrastructure to identify, research, discuss, design, and implement key architecture standards. Other responsibilities include: Research, design, document, build, and pilot prioritized topics for standards. Manage the list of potential standards and work with the application development management to prioritize efforts. Work closely with Development, Infrastructure, and Service Delivery teams to understand their needs and ensure the best standard is implemented. Work closely with development teams to pilot and prove out the standard. Drive the identification, development and implementation of key new standards in areas such as:, Performance Testing, Security, Event Management, Web UI Framework, .NET Design Standards, Application To Application Communication, Caching, etc. Propose new standards based on business need, IT need and technology advances. Assist development teams to implement the standards into business applications. Investigate new technology and techniques that should be developed into an agency architecture standard.
 Leads key architectural design projects as necessary. Operate as business savvy technical leader across the organization. Influence development teams to design high-quality technical solutions that fit the Architecture and standards. Educate Application Development managers, Developers, and business analyst on State Architecture Standards.

Skills and Technologies: Could include various technologies and roles, including work across Application Development, Service Delivery and Infrastructure to identify research, discuss, design, and implement key architecture standards.

ET1

Role Description:	• Architects in this position have achieved a mastery level of experience that includes the capabilities of experienced Application Developers and Technical Specialists who have the knowledge, skills, education and prior experience that involves the full and complete design of software solutions. • Architects are able to clearly communicate and document designs both at a logical and physical level and work with other technical stakeholders as needed.

ET2

Role Description:	All Roles specified in ET1 plus the following: • Additional architectural experience in the field. • May have specific technology experience. • Experience in a leadership role.

ERP ANALYST (EA)

The ERP Analyst (EA) reviews, analyzes, and modifies the programming systems including encoding, testing, and debugging to support an organization's Resource Planning (ERP) applications. The ERP Analyst ensures that software can be completely integrated into the ERP system. The ERP Analyst designs new modules to improve system efficiency. The ERP Analyst is familiar with a variety of the field's concepts, practices, and procedures and relies on experience and judgment to plan and accomplish goals. The ERP Analyst performs a

variety of tasks. The ERP Analyst may lead and direct the work of others. It is expected that the ERP Analyst have a wide degree of creativity and latitude.

Skills and Technologies: Could include various technologies and roles, including Oracle E-Business Suite, Peoplesoft, Microsoft Dynamics, Infor, Epicor, etc.

EA1

Role Description:	- Assists with the development and maintenance of the Resource Planning (ERP) program. - Customizes and configures workflow to allow the integration of client/server applications. Tests ERP layout to ensure the system is meeting corporate needs. - Has knowledge of commonly-used concepts, practices, and procedures within a particular field. - Relies on instructions and pre-established guidelines to perform the functions of the job. - Works under immediate supervision. - Typically reports to a supervisor or manager.

EA2

Role Description:	All Roles specified in EA1 plus the following: - Tests ERP layout to ensure the system is meeting corporate needs. - Familiar with standard concepts, practices, and procedures within a particular field. - Relies on limited experience and judgment to plan and accomplish goals. - Performs a variety of tasks. - Works under general supervision. A certain degree of creativity and latitude is required.

EA3

Role Description:	All Roles in EA2 plus the following: - Assists with the development and maintenance of the Resource Planning (ERP) program. - Customizes and configures workflow to allow the integration of client/server applications. - Familiar with a variety of the field's concepts, practices, and procedures. - Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. - May lead and direct the work of others. A wide degree of creativity and latitude is expected.

ERP DATABASE ADMINISTRATOR (EDBA)

The ERP Database Administer (EDBA) maintains, develops and implements policies and procedures for ensuring the security and integrity of the company's Resource Planning (ERP) database. The ERP Database Administer implements data models and database designs, data access and table maintenance codes resolves ERP database performance issues, database capacity issues, replication, and other distributed data issues. The ERP Database Administer is familiar with standard concepts, practices, and procedures within a particular field. The ERP Database Administrator relies on extensive experience and judgment to plan and accomplish goals. The ERP Database Administer performs a variety of tasks. The ERP Database Administer works under general supervision; typically reports to a manager.

Skills and Technologies: Could include various technologies and roles, including Oracle E-Business Suite, Peoplesoft, Microsoft Dynamics, Infor, Epicor, etc.

EDBA1

Role Description:	• Administers, maintains, develops and implements policies and procedures for ensuring the security and integrity of the company's Resource Planning (ERP) database. • Implements data models and database designs, data access and table maintenance codes; resolves ERP database performance issues, database capacity issues, replication, and other distributed data issues. • Familiar with standard concepts, practices, and procedures within a particular field. • Relies on limited experience and judgment to plan and accomplish goals. • Performs a variety of tasks. • Works under general supervision; typically reports to a manager. • A certain degree of creativity and latitude is required.

EDBA2

Role Description:	All Roles specified in EDBA1 plus the following: • More years of experience and knowledge.

EDBA3

Role Description:	All the roles specified in EDBA2 plus the following: • May lead or mentor other ERP Database Administrators.

ERP DEVELOPER (EED)

The ERP Database Administer (EDBA) maintains, develops and implements policies and procedures for ensuring the security and integrity of the company's Resource Planning (ERP) database. The ERP Database Administer implements data models and database designs, data access and table maintenance codes resolves ERP database performance issues, database capacity issues, replication, and other distributed data issues. The ERP Database Administer is familiar with standard concepts, practices, and procedures within a particular field. The ERP Database Administrator relies on extensive experience and judgment to plan and accomplish goals. The ERP Database Administer performs a variety of tasks. The ERP Database Administer works under general supervision; typically reports to a manager.

Skills and Technologies: Could include various technologies and roles, including Oracle E-Business Suite, Peoplesoft, Microsoft Dynamics, Infor, Epicor, etc..

EED1

Role Description:	• Performs Code enhancement and development programs and/or required fixes to production problems using the functional and technical programming standards. • Performs Test enhancement and development programs. • Participates in structured code reviews/walkthroughs. • Executes all required process steps. • Creates and provides content for operational documentation to Technical Writers. • Utilizes configuration management tools, design tools, debugging tools, and any other environment specific tools necessary to create, test, and implement an application.

	• Researches problems before approaching the Team Lead or Business Analysts for assistance.
	• Limited functional knowledge.
	• Follows quality standards.
	• Supports installation of application releases into production as directed.
	• Communicates accurate and useful status updates.
	• Ability to work in a team environment.
	• Completes assigned tasks.
	• Analyzes and designs enhancements, development programs, and/or required fixes to production problems.
	• Designs applications to functional and technical programming standards.
	• Works with Business Analysts to gather and interpret user requirements into design specifications.
	• Develops system specifications and interfaces.
	• Determines time estimates and schedule for work.
	• Moderates functional and process knowledge.
	• Assists in managing and directing ERP Application Team processes.
	• Coordinates work with other software developers on Application Teams.
	• Assists Team Lead or Test Team Lead in monitoring estimated-time-to-complete (ETC) and actuals for assigned tasks.
	• Develops application designs in support of the systems specifications and interfaces, perhaps in conjunction with application or technical architects.
	• Possesses operating System expertise sufficient to perform performance and tuning diagnostics.
	• Works with users to ensure that solutions meet business requirements.
	• Executes all responsibilities with little direct supervision of Team Lead.
	• Generally aware of new developments in industry and process and has ability to apply them to work as appropriate.
	• Anticipates and resolves issues specific to the team.
	• Determines time estimates and schedule for own work and resolves issues in a timely manner.
	• Identifies and tracks issues, risks and action items.
	• Strong communication skills; both written and spoken.

EED2

Role Description:	All roles specified in EED 1 plus the following:
	• Plans all required process steps.
	• Reviews and understands the Application Team's work plan.
	• Provides status of work to Team Lead.
	• Anticipates, identifies, tracks and resolves issues and risks affecting own work and work of the Application Team. Develop contingency plans as necessary.
	• Engages in ongoing process improvement.
	• Detailed functional and process knowledge.
	• Utilizes deep modeling, design and coding skills.
	• Provides expertise in one or more database environments.

EED3

Role Description:	All roles specified in EED2 plus the following:
	• Converts scientific, engineering, and other technical problem formulations to formats that can be processed by computer.

	• Resolves symbolic formulations, prepares flowcharts and block diagrams, and encodes resultant equations for processing by applying extensive knowledge of branch of science, engineering, or advanced mathematics, such as differential equations or numerical analysis, and understanding of capabilities and limitations of computer. • Confers with other business and technical personnel to resolve problems of intent, inaccuracy, or feasibility of computer processing. • Works with necessary personnel to determine if modifications are necessary with interested personnel to determine necessity for modifications or enhancements. • Leverages excellent written and verbal communication skills to develop new business process and programming solutions as directed by ERP business and technical stakeholders. • May coordinate activities of Developers. • Proven track record of hands-on ERP technical design and code work within large complex systems. • Proven hands-on ERP technical work with a variety of ERP technologies. • Demonstrated technical expertise integrating a variety of diverse ERP technical environments and cross-platform technologies. • Proven experience mentoring and performing supervisory functions for technical teams. • Able to make ERP best practice recommendations based on past work.

ERP PROJECT MANAGER (EP)

The ERP Project Manager (EP) directs, controls, administers, and regulates an enhancement or development program. The Project Manager is the individual ultimately responsible to the agency. The PM's primary responsibility is to drive the entire effort from start to finish. The PM must ensure that the program is completed on schedule and that the final product meets the business, technical, and established quality requirements. The difference between an EP1, and EP2 will depend on the size of the project, and the breadth and scope of the ERP project.

Skills and Technologies: Could include various technologies and roles, including project experience in one or more ERP System technologies including: Oracle E-Business Suite, Peoplesoft, Microsoft Dynamics, Infor, Epicor, etc.

EP1

Role Description:	• Responsible for the development of estimates for the enhancement or development effort in planning, analysis, design, construction, testing, and implementation of ERP Systems. • Accountable for delivery of all work tasks identified in the program plan. • Responsible for the capture and reporting of required program management metrics. • Adjusts and revises estimates when necessary. • Ensures all changes to scope follow processes and are documented. • Ensures new estimates are approved by the client and agreed upon. • Adjusts and revises estimates when necessary. • Manages, and tracks the program progress against the program plan. • Monitors project milestones and phases to ensure the project is on schedule. Take corrective actions if a project begins to slip its schedule. • Prepares status reports on a periodic basis for program team, team leads, group leads, and program manager and appropriate stakeholders.

	- Plans, organizes, prioritizes, and manages multiple work efforts across application teams. - Develops the detailed program plan for the enhancement or development effort - Accountable for the final program management evaluation review with stakeholders for approval upon program completion. - Responsible to tailor and baseline all program templates. - Accountable to schedule or monitor status reviews, peer reviews, program management inspections, and software quality assurance work product and process reviews with the appropriate designated resources. - Notifies team leads of project timelines, milestones, phases, work requests target dates, and approved executable work package. - Communicates and works with users and client as necessary. - Coordinates and presents proposals to agencies as necessary. - Analyzes and distributes reports on program metrics associated with work items related to improvement measures. - Ensures processes and activities are followed. - Accountable for the approval and sign-off of the program plan with customer representatives, such as portfolio managers, and all affected program stakeholders. - Accountable for management of scope for the program and gaining agreement and approval of scope changes with customer representatives and affected stakeholders. - Builds and maintains relationships with key stakeholders and customer representatives. - Directs work planning and scheduling design work. - Serves as the primary point of contact for all program-related issues and resolution of issues. - Coordinates and presents proposals to agencies as necessary. - Identifies and manages program risk and develops risk mitigation strategies, tracks to closure. - Ensures team leads adjusts and revises estimates when necessary. - Anticipates issues and proactively addresses them. Resolves conflicts with sensitivity and tact. - Coordinates the establishment of program standards and program specific procedures with team leads. - Responsible for project compliance with standards and procedures. - Responsible for the capture and reporting of required program management metrics. - Responsible to tailor and baseline all program templates. - Develops and facilitates achievement of program service commitments and performance metrics. - Ensures that tasks provide value and support the strategic direction of the program and meet service commitments; conduct reviews with agencies. - Accountable for the final program management evaluation review with stakeholders for approval upon program completion. - Communicates effectively with customers and software / hardware suppliers supporting the client as appropriate. - Identifies and tracks issues. - Balances workload with program members' capacity.

EP2

Role Description:	- All roles specified in EP1 plus the following: - Manages, coordinates, and establishes priorities for complete ERP life-cycle of projects including the planning, design, programming, testing, and implementation of ERP solutions designed to meet requirements

	• Designs ERP project plans, which identify needs and define major tasks and milestones, based on scope, resources, budget, and personnel.

GIS ANALYST (GISA)

GIS Analysts (GISA) performs analysis on data sets stored in a GIS database. GIS databases were originally created to help cartographers and geographers with mapping and surveying techniques, but the databases are now used in a wide variety of industries around the world.

Skills and Technologies: Could include: various technologies and roles, including ESRI ArcGIS, CAD, Trimble GPS, TerraSync, ArcPad and other GPS and GIS related software and systems.

GISA1

Role Description:	• Conduct analysis regarding the development of user interfaces, menus, and macro-level commands to meet user needs in addition to performing complex spatial analyses and producing reports according to customer specifications.
	• Assist in the development of geographic information systems that create, maintain, or leverage geospatial basemap information.
	• Create, adjust, correct, convert and distribute base maps and thematic data.
	• Provide documentation, requirements gathering and light quality assurance services.

GIS INFORMATION SYSTEMS SPECIALIST (GISS)

GIS Information System (GISS) Specialists work with related software and programs to create and maintain data and/or maps that can be combined with geographically referenced data. GIS software has the capacity to relate different types of data such as socioeconomic, demographic, administrative or political boundaries, land use, land cover, environmental, infrastructure, and transportation networks. They perform similar duties to that of a GIS Technician, but with larger, more complex systems.

Skills and Technologies: Could include: various technologies and roles, including ESRI ArcGIS, CAD, Trimble GPS, TerraSync, ArcPad and other GPS and GIS related software and systems.

GISS1

Role Description:	• Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites) in addition to performing simple spatial analyses.
	• Assist in the development of geographic information systems that create, maintain, or leverage geospatial base-map information.
	• Create, adjust, correct, convert and distribute base maps and thematic data.
	• Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata forms and produce maps of the resulting information.
	• Evaluate information and data from outside sources to determine the quality of the data.

GISS2

Role Description:	All roles specified in GISS1 plus the following:
	• This level is focused on proving resources in a more senior capacity for larger scale projects involving integration with multiple systems and departments.

GIS TECHNICIAN (GIST)

GIS technicians (GIST) make maps and customized geographic information systems applications and manipulate data to serve a variety of purposes. They read and interpret maps, manipulate and understand digital land data, and manage data entered into a GIS database.

Skills and Technologies: Could include various technologies and roles, including ESRI ArcGIS, CAD, Trimble GPS, TerraSync, ArcPad and other GPS and GIS related software and systems.

GIST1

Role Description:	• Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites).
	• Create, adjust, correct, convert and distribute base maps and thematic data.
	• Digitize and maintain spatial databases
	• Document procedures, validate data for accuracy and completeness, complete approved metadata and produce maps of the resulting information.
	• Evaluate information and data from outside sources to determine the quality of the data.

GIST2

Role Description:	All roles specified in GIST1 plus the following:
	• Perform specialized technical work in support of complex GIS applications.
	• Implement geo-databases, establish recovery plans, and monitor geo-database performance.
	• Write programs and develop user interfaces, menus, and macro-level commands to meet user needs in addition to performing simple spatial analyses and producing reports according to customer specifications.
	• Assist in the development of geographic information systems that create, maintain, or leverage geospatial base-map information.
	• Act as a "consultant" to internal customers during their use, development and quality assessment of spatial databases.

GRAPHIC DESIGNER (GD)

The Graphic Designer (GD) is responsible for all aspects of user interface design to include prototype development and coding of markup. The designer incorporates the business marketing goals, user interface standards (both internal and industry-established), and accessibility requirements to produce a user interface that accomplishes the functional requirements of the system. The designer works with the Functional Architect regularly to ensure that the design meets customer requirements. The designer also works with Programmers

to ensure that the user interface is then coded properly. The designer may play a role in testing, particularly in the area of accessibility

Skills and Technologies: Could include various technologies and roles, including Adobe InDesign, Photoshop, Illustrator, Acrobat Pro, HTML, CSS, and other related tools/technologies.

GD1

Role Description:	- Participate in requirements analysis and/or thoroughly review requirements documentation to have a thorough understanding of the system requirements. - Development of quasi-functional prototypes (such as static web pages with functional links to demonstrate navigations). - Present prototypes to stake holders and design teams. - Documentation of established user interface standards specific to the application. - Coding of HTML markup (in the case of web applications). Uses webpage design tools such as Dreamweaver and other common applications. - Participate in application testing to ensure that the system meetings user interface requirements. - Perform accessibility tests using screen reader tools. - Ability to work in a team environment. - Complete assigned tasks. - Strong communication skills; both written and spoken.

GD2

Role Description:	All roles specified in GD1 plus the following: • Additional years and larger project experience

HEALTHCARE PROGRAMMER (HRP)

The Heathcare Programmer (HRP) brings expertise as an programmer and designer for systems involving the need for subject matter expertise in healthcare related applications.

Skills and Technologies: Could include: various technologies and roles, including Development of systems designated for Health Human Services Health Systems, HL7, EHR, HIPPA, ACA, Delphi, HIT (Health Information Technology) and other related areas

HRP1

Role Description:	- Work with coding schemes and design of Health related technical interfaces - Development and enhancement of software applications associated with EHR and Health Information Technology based on established design specifications - Business and workflow process modeling, and business reengineering - Implementing configuration changes to applications to meet both functional and technical requirements - Unit testing applications and developing system and user documentation - Long-term support of HIT infrastructure, technologies, and functionality, including services to upgrade system configuration and functionality due to system or release upgrade

HRP2

Role Description:	All roles specified in HRP1 plus the following: - Point of contact on site for development-related questions and issues that arise which cannot be addressed by a technical consultant - Leading functional and detailed requirement development, code development, Joint Application Development (JAD) sessions, functional and detailed design, and life cycle management - Development of recommendations to effectively report data of mid to high level complexity related to varied business metrics and for designing, coding, testing, debugging, and documenting reporting solutions, while enhancing existing reports to ensure that solutions continue to meet business needs.

HEALTHCARE SYSTEMS ARCHITECT (HSA)

The Healthcare Systems Architect (HSA) brings expertise as an architect for any applications or infrastructure designed to support healthcare related applications.

Skills and Technologies: Could include various technologies and roles, including Creation/management/design of Health Human Services Health Systems, HL7, HER, ACA, Delphi, HIT (Health Information Technology) and other related areas

HSA1

Role Description:	- Responsibility for translating the business and functional requirements into specific system, application and process designs. - Acting as the technical reference for healthcare-related design, development, testing, and deployment knowledge while providing technical input to estimate the functional scope. - Guidance during quality reviews of project deliverables.

HSA2

Role Description:	All roles specified in HSA1 plus the following: - Defining the architecture for use in a large scale implementation and guide implementation in the correct use of the environment. - Functions a subject matter expert with prior successful implementations in governmental institutions.

HEALTHCARE TECHNICAL SPECIALIST (HRTS)

The Healthcare Technical Specialist (HRTS) is responsible for the set of tasks and techniques used to work as a liaison among stakeholders in order to understand the structure, policies, and operations of an organization, and to recommend solutions that enable the organization to achieve its goals. This technically adept developer and designer for systems involving the need for subject matter expertise in healthcare related applications. Could also apply to healthcare coding scheme experts.

Skills and Technologies: Could include various technologies and roles, including Advanced design of systems designated for Health Human Services Health Systems, HL7, HER, ACA, Delphi, HIT (Health Information Technology) and other related areas

HRTS1

Role Description:	- Demonstrates expertise in conveying technical and functional concepts for a specific technical specialty. - Identifies improvements to project standards to achieve high quality services/ products. - Able to identify best practices and standards for the use of the product. - Identifying and documenting business processes, issues, value levers, metrics, and capabilities. - Development and enhancement of software applications associated with EHR and Health Information Technology based on established design specifications. - Business and workflow process modeling, and business reengineering . - Implementing configuration changes to applications to meet both functional and technical requirements. - Interpreting technical concepts to both technical personnel and non-IT business users and summarize and convey technical issues and problems identified.

HRTS2

Role Description:	All roles specified in HRTS1 plus the following: - Delivers support and design for industry specific applications that require integration with statewide systems or applications. - Interacts with executive level business users or technical experts. - Advanced experience in the required technical subject matter. - May function as a niche technical SME.

HELP DESKTOP ANALYST (HDA)

The Help Desk Analyst (HDA) assists end users in resolving hardware and software issues by fielding telephone calls and email communications, diagnosing problems and performing troubleshooting activities. Documents, tracks and monitors problems to facilitate a timely resolution. Relies on established guidelines and instructions to perform daily job functions. Works under immediate supervision.

Skills and Technologies: Could Include: various technologies and roles, including Tier 1-2 support, ticket/issue tracking software (i.e. Remedy), Automated Call Distribution (ACD) software, VPN, remote login software

HDA1

Role Description:	- Provide technical assistance, support, and advice to end users for hardware, software, and systems. - Provide hands-on technical assistance to business and technical users. - Investigate and resolve computer software and hardware problems of users. - Serve as a contact for users having problems using computer software, hardware, and operating systems, and escalates as necessary. - Determine whether problem is caused by hardware, software, or system.

	• Answer questions, applying knowledge of computer software, hardware, systems, and procedures.
	• Talk with technical and non-technical co-workers to research problem and find solution.
	• Asks user with problem to use telephone and participate in diagnostic procedures, using diagnostic software or by listening to and following instructions.
	• Experienced with a variety of call-tracking software and systems.
	• Engages in independent study to maintain current industry knowledge.
	• Follow quality standards, and displays strong customer service skills.
	• Ability to work in a team environment.
	• Complete assigned tasks.
	• Strong communication skills; both written and spoken.

HDA2

Role Description:	All roles specified in HDA1 plus the following:
	• Call software and hardware vendors to request service regarding defective products.
	• Act as a subject matter expert for one or more custom or COTS applications.
	• Talk to programmers to explain software errors or to recommend changes to programs.
	• May work as in-house consultant and research alternate approaches to existing software and hardware when standardized approaches cannot be applied.
	• Test software and hardware to evaluate ease of use and whether product will aid user in performing work.
	• Write software and hardware evaluation and recommendations for management review.
	• Write or revise user-training manuals and procedures.
	• Develop training materials, such as exercises and visual displays.
	• Train users on software and hardware on-site or in classroom, or recommend outside contractors to provide training.
	• Manage expectations at all levels: customers/end users, executive sponsors.
	• Ensure quality standards are followed.
	• Monitor the team's open backlog of support issues and re-assign issues as necessary to ensure they are closed per agreed upon service levels.
	• Act as the escalation point for high priority support issues.
	• Ability to make recommendations on policies on system use and services.

INFRASTRUCTURE TECHNICAL SPECIALIST (ITS)

The Infrastructure Technical Specialist (ITS) is a senior level resource with specialized knowledge and experience in specific technologies. The Technical Specialist has an overall knowledge of IT infrastructure and architecture that serves as a strong base for technical expertise in a specific product or program.

Skills and Technologies: Could include various technologies and roles, including Cisco, Windows Service, UNIX, Linux, VMware, Security, SharePoint Administration, Identity and Access Management (IAM) etc.

ITS1

Role Description:	• Demonstrates expertise in conveying technical and functional concepts for a specific technical specialty.

	• Identifies improvements to project standards to achieve high quality services/ products.
	• Identifies best practices and standards for the use of the product.

ITS2

Role Description:	All roles specified in ITS1 plus the following:
	• Delivers support and design for industry specific technologies that require integration with systems or networks.
	• Interacts with executive level business users or technical experts.
	• Functions as a niche technical SME.

ITS3

Role Description:	All roles specified in ITS2 plus the following:
	• Advanced experience in the required technical subject matter.

ITS4

Role Description:	All roles specified in ITS3 plus the following:
	• Lead experience with technical expertise across large, complex implementations for systems.

IT SECURITY ANALYST (ISA)

The IT Security Analyst (ISA) possesses experience in the field of Information Systems Security. The candidates possess industry experience in the field of IT security. The ISA should possess working knowledge of IT Security Best Practices regarding networks and networking including protocol analysis, anomaly detection, and troubleshooting, and/ or working knowledge of IT Security Best Practices regarding Windows and *nix Servers and workstations required. The ISA has experience with vulnerability assessment tools including but not limited to the following technologies; databases, web based applications, Windows and Unix file servers and data networks. Additional knowledge of information security standards and regulations preferred.

Skills and Technologies: Could include various technologies and roles, including Intrusion Detection (IDS), Security Information and Event Management (SIEM), Security Event Management (SEM), National Institute of Standards and Technology (NIST), ISO, OWASP.

ISA1

Role Description:	• Performs risk analysis, documenting results and guiding best practice implementations.
	• Performs business continuity planning and disaster recovery analysis, planning, testing and implementation.
	• Evaluates and develops protocols to harden security measures.

ISA2

Role Description:	All roles specified in ISA1 plus the following:
	• Develops and publishes information security policy, standards and procedures in cooperation with business customers.
	• Performs vulnerability analysis, documenting results and guiding remediation efforts.

ISA3

Role Description:	All roles specified in ISA2 plus the following:

| | • Experience with larger scale projects involving integration with multiple systems and departments. |
| | • May lead and direct the work of others. |

IT SECURITY ARCHITECT (ITSA)

The IT Security Architect (ITSA) consults on projects to recommend security best practices, develop architectures and hardening guides, and reviews and evaluate solutions against relevant risk frameworks and regulations. They provide information security policy, process, procedure and application consulting direction. The ITSA has extensive advanced information security practitioner experience with hands-on experience implementing and operating a suite of standard information security technologies, such as but not limited to firewalls, IDS/IPS, SIEM and network traffic capture and analysis. The ITSA shares knowledge of information security frameworks such as ISO 27001, NIST 800-53 and other standards such as PCI-DSS, FISMA, OWASP and federal law.

Skills and Technologies: Could include various technologies and roles, including DS/IPS, SIEM, Antivirus, Network Traffic Analyzers, CISSP, GSEC, CEH, Security+, SABSA, TOGAF, Advanced Disaster Recovery (DR), Business Continuity Plan (BCP) & Continuity Of Operations (COOP) assessment, development, implementation, operation.

ITSA1

Role Description:	• Lead risk assessments using industry standard frameworks such as ISO or NIST for complex IT projects.
	• Utilizes architecture frameworks and methodologies.

ITSA2

Role Description:	All roles specified in ITSA1 plus the following:
	• Designs -wide IT security plans, measures and strategies.
	• Provides expertise of regulatory compliance including, but not limited to: OWASP, ISO, NIST, FISMA, PCI-DSS, HIPAA and IRS-1075.
	• Provides expertise related to SABSA or TOGAF architecture frameworks and methodologies.

IT SECURITY AUDITOR (ITAU)

The IT Security Auditor (ITAU) is an expert in security best practices and experience in intrusion protection and protection of information assets. An IT Auditor prepares IT security documentation, including department policies and procedures, agency notifications, Web content, and alerts.

Skills and Technologies: Could include various technologies and roles, including DS/IPS, SIEM, Antivirus, Network Traffic Analyzers, CISSP, GSEC, CEH, Security+, SABSA, TOGAF, Advanced Disaster Recovery (DR), Business Continuity Plan (BCP) & Continuity Of Operations (COOP) assessment, development, implementation, operation.

ITAU1

Role Description:	• Coordinate response to information security incidents. • Develop and publish Information Security policies, procedures, standards and guidelines based on knowledge of best practices and compliance with IT Security policies, standards, and guidelines. • Conduct data classification assessment and security audits and manage remediation plans. • Collaborate with IT management, Internal Audit, and VITA to manage security vulnerabilities. • Create, manage and maintain user security awareness. • Conduct security research and keeps abreast of latest security issues. • Advanced knowledge of security standards and progressive experience performing security audits.

IT SECURITY ENGINEER (ISE)

The IT Security Engineer (ISE) supports the creation of the target security/infrastructure architecture. They author corresponding requirements, including definition of dependencies on infrastructure consolidation efforts. Additionally, they define Security/Information Assurance requirements (and dependencies). The ITSE specifies key architectural aspects of the architecture view, and identify other aspects that need definition. Other duties include researching best practices for reuse, applying IT security industry standards. The ITSE works with current and emerging information security technologies and development methodologies. They possess good analytical and creative problem solving skills. They rely on hands-on experience and judgment to plan and accomplish goals and independently perform a variety of complicated tasks.

Skills and Technologies: Could include: various technologies and roles, including CISSP, GSEC, GIAC, CEH, Security+ etc. certifications, firewalls, Identity and Access Management (IAM), Payment Card Industry (PCI).

ISE1

Role Description:	• Expertise in implementing, administrating and operating information security technologies such as firewalls, IDS/IPS, SIEM, Antivirus, network traffic analyzers and malware analysis tools. • Utilize advanced experience with scripting and tool automation such as Perl, PowerShell, Regex.

ISE2

Role Description:	All roles specified in ISE1 plus the following: • Develops, leads and executes information security incident response plans. • Develops standard and complex IT solutions & services, driven by business requirements and industry standards.

ISE3

Role Description:	All roles specified in ISE2 plus the following: • Creates advanced Disaster Recovery Plans (DR), Business Continuity Plans (BCP) & Continuity Of Operations (COOP) assessments. • Assists IT Security Architects (ITSA) with designing IT security solutions.

IT STRATEGIST (ITS)

An IT Strategist (ITS) is a senior level (often Director or C-Level) resource that Supports top management in IT strategy formulation, IT strategic plans execution, strategic process improvements, and communication of IT

strategies to all stakeholders. Analyze business performance, industry trends, existing or new regulatory requirements and their impact on IT operations; make recommendations on alternative courses of action, including risk assessment, capital investment, and acquisitions needed to align IT strategy with agency strategic plan.

Skills and Technologies: Could include various technologies and roles, including functioning as a senior consultant or advisor in place of strategic planning personnel, including Acting Directors, Directors and CTO/CIO levels. The senior levels should be capable of working in critical roles at the direction of cabinet level representatives.

ITS1

Role Description:	• Requires advanced knowledge of strategic planning concepts and frameworks, business issues and concepts, research methodology, general management and financial analysis. • Additionally, requires interaction skills with senior management, with ability to articulate and defend recommendations made.

ITS2

Role Description:	All roles specified in ITS1 plus the following: • Should have prior Directorial responsibilities in large corporate or institutional roles. • Requires strong financial/systems experience. • Capable of reporting to Cabinet level positions and or addressing wide initiatives requiring cross agency or cross-branch work.

IT TRAINER (ITT)

IT Trainer (ITT) could be responsible for developing agency-wide training plans. Coordinate IT strategic planning process to determine the department's training requirements through communications with staff throughout the agency. Identify existing training that meets the requirements and provide a gap analysis of courses to develop in house. Develop curriculum and training plan. Develop evaluation and monitoring methods to ensure quality training. Develop short video training. Produce written documents with clearly organized thoughts using proper English sentence construction, punctuation, and grammar.

Skills and Technologies: Could include various technologies and roles, including Word PowerPoint, Excel, Adobe Acrobat and various Desktop Publishing tools

ITT1

Role Description:	• Responsible for preparing, conducting and evaluating technical training programs. • Assess training needs and certification requirements. • Deploys training to technical and non-technical business users or targeted personnel. • Confers with management and staff or technical training coordinator to determine training objectives. • Prepares training materials and classroom agendas. Conducts presentations and webinars. • Creates instructor materials (course outlines, background material, instructional materials and training aids) as well as design computer based and multimedia curriculum. • Continuously enhance technical instructional delivery and presentation skills. • Provide mentorship to other instructors in subject matter , content, and course delivery techniques for assigned technical courses.

	• Test process with different subjects.
	• Ensure consistency and quality assurance of course content throughout course life cycle.
	• Manage training program in accordance with business needs , regulatory requirements and executive leadership.

ITT2

Role Description:	All roles specified in ITT2 plus the following:
	• Responsible for preparing, conducting and evaluating technical training programs.
	• Assess training needs and certification requirements.
	• Deploys training to technical and non-technical business users or targeted personnel.
	• Confers with management and staff or technical training coordinator to determine training objectives.
	• Prepares training materials and classroom agendas. Conducts presentations and webinars.
	• Creates instructor materials (course outlines, background material, instructional materials and training aids) as well as design computer based and multimedia curriculum.
	• Continuously enhance technical instructional delivery and presentation skills.
	• Provide mentorship to other instructors in subject matter , content, and course delivery techniques for assigned technical courses.
	• Test process with different subjects.
	• Ensure consistency and quality assurance of course content throughout course life cycle.
	• Manage training program in accordance with business needs , regulatory requirements and executive leadership.

LAN/WAN ADMINISTRATOR (LWA)

The LAN/WAN Administrator (LWA) supports the design, documentation, deployment and support of LAN and WAN network equipment, with a focus on access, distribution, core and data center LAN services. They possess operational experience deploying and supporting data networking in large and complex environments. The LWA possesses experience with network access and distribution LAN switching products supporting data and VOIP, as well as data center class products. They provide LAN expertise for access, distribution and data center deployments. The LAN/WAN Administrator (LWA) installs, configures, and supports an organization's local area network (LAN), wide area network (WAN), and Internet system or a segment of a network system. The LAN/WAN Administrator maintains network hardware and software, monitors the network to ensure network availability to all system users and performs necessary maintenance to support network availability. The LAN/WAN Administrator may supervise other network support and client server specialists and plan, coordinate, and implement network security measures.

Skills and Technologies: Could include various technologies and roles, including Cisco, Nortel, Avayya, switches, routers, Citrix VMware (and other virtual technologies), Unified Communication Systems (UCS).

LWA1

Role Description:	• Designs, implements and supports network segmentation in a data center environment.
	• Provides expertise of TCP/IP networking, IP subnetting, and networking technologies.
	• Provides LAN expertise for access, distribution and data center deployments.

	• Installs, configures, and supports an organization's local area network (LAN), wide area network (WAN), and Internet system or a segment of a network system.
	• Maintains network hardware and software, monitors the network to ensure network availability to all system users and performs necessary maintenance to support network availability.

LWA2

Role Description:	All roles specified in LWA1 plus the following:
	• Implements and supports LAN/WAN switching products for access, distribution, core and data center solutions.
	• Supervises other network support and client server specialists and plans, coordinates, and implements network security measures.

LEAD COMPUTER OPERATOR (LCO)

The Lead Computer Operator (LCO) is responsible for the tasks associated with the leadership and coordination of Computer Operators. Some roles involve preparation and operation of teleprocessing computers and peripheral equipment. The Lead Computer Operator will function as a partner to client employees in enforcing standards and practices that ensure best practices are followed. The Lead Computer Operator may also monitor the computer and network infrastructure, data center environmental controls, and physical security systems to take appropriate action as required.

Skills and Technologies: Could include various technologies and roles, including Mainframe, COBOL, tape archiving, JCL, IDMS, MVS/TSO, ISPF, NOC monitoring software

LCO1

Role Description:	• Leads efforts of operators or teams of operators to ensure support of computer systems and platforms.
	• Reports resource changes and adjustments to staff to senior management.
	• Acts as focal point for mainframe/midrange operations issues escalation.
	• Leads efforts to troubleshoot system hardware and software problems.

LCO2

Role Description:	All roles specified in LOC1 plus the following:
	• Leads team of Operators supporting complex systems or multiple wide application platforms or infrastructure.
	• Possesses expertise in teaching/conveying technical and/or functional courses/concepts.

LEAD HELP DESK ANALYST (LHDA)

The Lead Help Desk Analyst (LHDA) manages the day to day work of the Help Desk team by monitoring and allocating call distribution to ensure proper response SLAs are met. The Lead Help Desk Analyst is also responsible for reviewing trouble tickets for consistency and completion, increasing the likelihood of successful outcomes. The Lead Help Desk Analyst also creates and reviews reports to identify areas of improvement, implementing processes and procedures that improve end user experiences and process efficiency.

Skills and Technologies: Could include: various technologies and roles, including Tier 1-2 support, ticket/issue tracking software (i.e. Remedy), Automated Call Distribution (ACD) software, VPN, remote login software

LHDA1

Role Description:	• Serves as Team Lead for help/service desk • Creates and reviews reports related to issue response and resolution times. • Reviews system tickets for completeness and issue tracking purposes. • Trains new team members.

MOBILE SPECIALIST (MS)

The Mobile Specialist (MS) will serve as a Developer/Engineer for Mobile App Development, Security and/or Infrastructure Projects. The Mobile Specialist may also participate in project planning and in the creation and review of technical deliverables. The Mobile Specialist may also guide and mentor the technical team in all phases of the SDLC, including requirement validation, detailed design, development, and implementation.

Skills and Technologies: Could Include various technologies and roles, including Mobile App Development, Security and/or Infrastructure Projects with Android and iOS systems. Programming may include native iOS, Android, Objective-C, Swift, JSON, webservices, UIKit, CoreData, hybrid app development, MDM etc.

MS1

Role Description:	• Serves as the Designer, Developer and/or Engineer on Mobile Projects. • Meets with end users and technical staff of all types to gather business and system requirements. • May work with Mobile Specialist 2 to propose comprehensive solutions based on business and technical requirements. • Develops and/or engineers user interface, service tier, data tier components, infrastructure or security for Mobile Projects. • Develops standards, repeatable processes, and reusable components • Assists in project planning, including developing of timelines, composition of technical teams, and leveling of resources. • Mentors technical team leads and team members on department processes and standards to promote consistency and improve productivity. • Assists in the development and review of technical deliverables on projects.

MS2

Role Description:	All roles specified in MS1 plus the following • Serves as the Lead Architect/Designer/Developer /Engineer on Mobile Projects. • Meets with end users and technical staff of all types to gather business and system requirements. • Proposes comprehensive solutions based on business and technical requirements. • Architects, designs, develops, and/or engineers user interface, service tier, data tier components, infrastructure or security for Mobile Projects. • Develops standards, repeatable processes, and reusable components • Leads project planning, including developing of timelines, composition of technical teams, and leveling of resources.

	• Mentors and manages technical team leads and team members on department processes and standards to promote consistency and improve productivity. • Leads the development and review of technical deliverables on projects.

NETWORK ARCHITECT (NAR)

The Network Architect (NAR) is responsible for large-scale infrastructure design, coordination and organization of LAN/WAN Network installations using best practices and leading edge techniques. The Network Architect will have advanced knowledge in network analysis, as well as experience with designing and implementing class wide area networks. The Network Architect will possess knowledge of network vulnerabilities and be able to mitigate and prevent each one. The Network Architect also has a proven ability to design systems that prevent security issues. The Network Architect may be a Certified Engineer/Expert and may be experienced with agency or statewide network operating systems, network devices, and configuration of client/server systems.

Skills and Technologies: Could include various technologies and roles, including Network design/mapping, encryption, security, core/catalyst switches/routers, storage and disaster recovery.

NAR 1

Role Description:	• Knowledge of network analysis related to infrastructure design. • May be an expert in security or intrusion detection. • Proficient in proprietary network technology.

NAR 2

Role Description:	All roles specified in NAR1 plus the following: • Advanced experience with, but not limited to routers, firewalls, switches and servers. • Advanced knowledge in network analysis. • Advanced problem resolution and project management skills. • Designs and implements class wide area networks. • Experience with Firewalls, VPN, encryption, intrusion detection and prevention systems, and penetration testing. • Knowledge of network vulnerabilities and be able to mitigate and prevent each one.

NETWORK ENGINEER (NE)

The Network Engineer (NE) is responsible for Network and Server Connectivity on both hardware and software related to the installation and design of LAN/WAN environments. The Network Engineer will also have experience with networks in which telephony is integrated to IT systems or stand-alone custom kiosks. The Network Engineer may also be the focal point for migration and infrastructure expansion on existing systems. The Network Engineer may possess a formal certification; if not, he or she would have equivalent experience in installing hardware and software associated with networks. In larger environments, the Network Engineer will collaborate or take direction from a Network Architect in larger environments. In smaller environments, the Network Engineer often assumes the role of a Network Architect.

Skills and Technologies: Could include: various technologies and roles, including Cisco, Avayya, Nortel, Routers, Switches, TCP/IP, BGP, Storage Area Network (SAN), CCNA/CCNP/CCIE certifications.

NE 1

Role Description:	• Installs, configures, and manages server hosted network attached storage (NAS) and storage area network (SAN) disk storage technologies tied to network infrastructure. • Installs complex computer networks and related computing environments including computer hardware, systems software, applications software, and all configurations. • Designs, installs, configures, monitors, and troubleshoots network equipment such as, but not limited to, Hubs, Network Interface Cards (NIC), Local Area Network (LAN) cards, hard drives, Ethernet switches, routers, wireless bridges, monitoring devices, access points, firewalls, intrusion detection systems, and content devices. • Plans, coordinates, and implements network security measures to protect data, software, and hardware. • Tests computer hardware, networking software and operating system software in preparation of new installation or upgrade. • Works with vendors to resolve problems. • Working knowledge of network applications, switches and servers. • Experience in network cabling systems and fiber optic cabling.

NE 2

Role Description:	All roles specified in NE1 plus the following: • Executes changes to improve systems and network configurations, and determine hardware or software requirements related to such changes. • Supervises other team members and provide training in advanced networking skills. • Writes and produces technical documentation. • Possesses working knowledge of network applications, switches and servers. • Functions as infrastructure expert in maintaining large, disparate systems and networks. • Confers with Network Architects or systems managers to ensure compliance standards are met.

NE 3

Role Description:	All roles specified in NE2 plus the following: • Architects and designs changes to improve systems and network configurations, and determines hardware or software requirements related to such changes.

Production Support Specialist (PSS)

The Network Engineer (NE) is responsible for Network and Server Connectivity on both hardware and software The Production Support Specialist (PSS) is part of the Operations Team, and will be responsible for maintaining and continually improving current operational capabilities. The day to day responsibilities may include the monitoring of all production systems, and resolution of issues with applications in the production environment. The Production Support Specialist is knowledgeable on the usage and support of a collection of development platforms or technical architectures, and products that run on those platforms. The primary responsibility of a Production Support Specialist is to ensure the availability and facilitate the productive use of a development platform or a test environment for Application Teams or end users. The Production Support Specialist may support one or several instances of a platform/environment, applying their skills directly to a platform/environment and/or leveraging their skills. Production Support Specialist work across multiple platforms/environment. The Production Support Specialist may, especially for usage and support of a platform, be part of an Application Team using the architecture. The Production Support Specialist requires experience and skills in the environment supported and in the operations and in common usage of products for the

environment The Production Support Specialist is responsible for collaborating with IT personnel and vendors to coordinate and enhance the use of the platform and facilitate migration to new versions of the platform.

Skills and Technologies: Could include: various technologies and roles, including support of maintenance and development environments including : Exchange and Microsoft Windows Servers, MS SQL, Linux, JAVA, .NET, VB.Net, etc.

PSS1

Role Description:	- Assist in coordination of testing changes, upgrades and new products, ensuring systems will operate correctly in current and future environment. - Make recommendations on functional and technical improvements to the environment. - Participate in performance and volume analysis and design. - Participate in performance improvement activities. Identify and apply potential improvements related to the environment for an application. - Provide accurate and complete answers to general use and environment questions in a timely manner. - Provide effective on-site environment support as needed. - Accurately set severity of identified defects. - Provide input to training and/or documentation materials regarding latest technical and functional design changes. - Ensure all work is documented for future reference. - Follow quality standards. - Ensure effective and reliable backups are being performed and distributed properly. - Proactively address customer needs. - Track and anticipate volume and type of use of the environment. - Plan and implement shared software, such as operating systems, configuration management tools, application and development tools, testing tools, compilers, and code editors. - Basic scripting and programming skills, including languages that run on specified platform. - Analytical and customer service skills. - Communicate accurate and useful status updates. - Ability to work in a team environment. - Complete assigned tasks. - Strong communication skills; both written and spoken.

PSS2

Role Description:	All roles specified in PSS1 plus the following: - Plan and manage network operating system upgrades. - Actively participate in analyzing and evaluating emerging software and hardware technologies/standards. - Serve as a liaison between teams for network planning and connectivity. - Develop appropriate functional and usability standards for the environments. - Plan or assist in planning network environment, including supporting existing structure and enhancements. - Plan and coordinate testing changes, upgrades and new and standard products, ensuring systems will operate correctly in current and future environment. - Anticipate, identify, track and resolve issues and risks affecting work of the Application or Environment team. Develop contingency plans as necessary.

	• Analyze the functional and/or technical impact of new product releases. • Advanced scripting and programming skills, including languages that run on specified platform. • Determine time estimates and schedule for own work and resolve issues in a timely manner.

PSS3

Role Description:	All roles specified in PSS2 plus the following: • Identify opportunities for new and improved technologies/standards to be used in the organization. • Identify, plan, and implement phase-out strategies for products and technologies. • Plan and coordinate testing changes, upgrades and new products, ensuring systems will operate correctly in current and future environment. • Demonstrate expertise in teaching/conveying technical courses/concepts. • Assist in setting architecture direction and knowledge sharing. • Plan, organize, prioritize, and manage multiple work efforts the Application or Environment Teams. • Develop appropriate work programs and use to effectively schedule tasks/assignments.

PROGRAM MANAGER / ENGAGEMENT MANAGER (PREM)

The Program manager or Engagement Manager (PREM) functions as a coordinator and director of large scale projects and solutions within a given agency or team. This primary point of contact for problem resolution and project direction would report to various directors/technical leaders within a department or agency. Program Manager could engage with or oversee larger scale projects that involve complex implementation of systems being done by outsourced vendors or internal project teams. Liaise with outside subject matter experts and specialist in the field and maintain direction of projects assigned. Could involve management of various team members involved with delivery of the project.

Skills and Technologies: Could include various technologies and roles, including Agile, Waterfall or other SDLC methodologies. Executive and senior management interaction is typical for this role. Outside business efforts may require interaction with vendors and partners contracted to hiring departments.

PREM 1

Role Description:	• Provides project control support and coordinates the work of the PCO or PMO staff implementing solutions to meet the customer requirements and supports the customer's on-going system engineering life-cycle processes. Responsible for supporting all project delivery work in accordance with required methodology and following all standard project management industry standards such as PMI's framework. • Coordinates and controls the end to end process of capturing all key project artifacts, including but not limited to: business cases, project charters, baselined project schedules, project management plans, change requests, status reports, lessons learned. • Raises identified issues and risks to the appropriate senior management level including the Project Management Office (PMO) for action inclusive of description of the issue, comprehensive analysis of options and recommendation for remediation. • Manages portfolio of projects' execution to ensure conformity to established budgets, timelines and scope.

	• Works with the stakeholders, including the PMO to facilitate project governance effectiveness through weekly status reporting, project/portfolio data, regular governance meetings, etc.

PREM 2

Role Description:	All roles specified in PREM1 plus the following: • Experience in successfully managing Information Technology (IT) projects (full project life cycle) whose budget was greater than $10,000,000 (excluding hardware/software costs) and whose timeline was greater than 3 years. • Experience in successfully managing a PCO/PMO for complex projects (including multiple stakeholders, staff, multiple vendors, data conversions and multiple technologies). • Documented experience in successfully managing a PMO/PCO for complex projects (including multiple stakeholders, PCO staff, multiple vendors, data conversions and multiple technologies). • Documented experience in performing Project Management, Quality Management, or other critical functions within complex Information Technology projects (preferably with budgets greater than $10,000,000 and multi-phase, multiyear implementations). • Professional certification in Project Management, such as Project Management Professional (PMP) certification from the Project Management Institute.

PROJECT MANAGER (PM)

The Project Manager (PM) directs, controls, administers, and regulates an enhancement or development program. The Project Manager is the individual ultimately responsible to the agency. The Program Manager's primary responsibility is to drive the entire effort from start to finish. The Project Manager must ensure that the program is completed on schedule and that the final product meets the business, technical, and established quality requirements. The difference between a PM1, PM2, and PM3 will depend on the size of the project, and the breadth and scope of the project.

Skills and Technologies: Could include various technologies and roles, including Agile, Waterfall or other SDLC methodologies. Often PMP/PMI certifications are targeted. Team size can be very large or as small as 5. Project Managers typically have the responsibility for one or more project management tools including MS Project.

PM1

Role Description:	• Responsible for the development of estimates for the enhancement or development effort in planning, analysis, design, construction, testing, and implementation. • Accountable for delivery of all work tasks identified in the program plan. • Responsible for the capture and reporting of required program management metrics. • Adjust and revise estimates when necessary. • Ensure all changes to scope follow processes and are documented. • Ensure new estimates are approved by the client and agreed upon. • Adjust and revise estimates when necessary. • Manage, and track the program progress against the program plan. • Monitor project milestones and phases to ensure the project is on schedule. Take corrective actions if a project begins to slip its schedule. • Prepares status reports on a periodic basis for program team, team leads, group leads, and program manager and appropriate stakeholders. • Plan, organize, prioritize, and manage multiple work efforts across application teams. • Develop the detailed program plan for the enhancement or development effort

	• Accountable for the final program management evaluation review with stakeholders for approval upon program completion. • Responsible to tailor and baseline all program templates. • Accountable to schedule or monitor status reviews, peer reviews, program management inspections, and software quality assurance work product and process reviews with the appropriate designated resources. • Notify team leads of project timelines, milestones, phases, work requests target dates, and approved executable work package. • Communicate and work with users and client as necessary. • Coordinate and present proposals to agencies as necessary. • Analyze and distribute reports on program metrics associated with work items related to improvement measures. • Ensure processes and activities are followed.

PM2

Role Description:	All roles specified in PM1 plus the following: • Accountable for the approval and sign-off of the program plan with customer representatives, such as portfolio managers, and all affected program stakeholders. • Accountable for management of scope for the program and gaining agreement and approval of scope changes with customer representatives and affected stakeholders. • Build and maintain relationships with key stakeholders and customer representatives. • Direct work planning and scheduling design work. • Manage and track the program progress against the program plan. • Serve as the primary point of contact for all program-related issues and resolution of issues. • Coordinate and present proposals to agencies as necessary. • Identify and manage program risk and develops risk mitigation strategies, track to closure. • Ensure team leads adjust and revise estimates when necessary. • Anticipate issues and proactively address them. Resolve conflicts with sensitivity and tact. • Coordinate the establishment of program standards and program specific procedures with team leads. • Responsible for project compliance with standards and procedures. • Responsible for the capture and reporting of required program management metrics. • Responsible to tailor and baseline all program templates. • Develop and facilitate achievement of program service commitments and performance metrics. • Ensure that tasks provide value and support the strategic direction of the program and meet service commitments; conduct reviews with agencies. • Accountable for the final program management evaluation review with stakeholders for approval upon program completion. • Communicate effectively with customers and software / hardware suppliers supporting the State as appropriate. • Identify and track issues. • Balance workload with program members' capacity. • Communicate to team members how their work assignments relate to and help achieve program objectives. • Plan program specific training and orientation needs.

PM3

Role Description:	All roles specified in PM2 plus the following: • Accountable for activities with excess delivery cycles of 8 to 12 months.

QA TESTER (QAT)

The Quality Assurance Tester (QAT) is responsible for the design, pilot, and implementation of the software quality assurance review processes. They typically have a background in software development and testing. The Quality Assurance Tester will work with Application Teams during pre and post assessment periods. The Quality Assurance Tester reports to the Quality Assurance Team Manager. For each phase end review the Quality Assurance Tester is responsible to plan, schedule, execute, and document findings of the review. Quality Assurance Testers must have a detailed understanding of processes which support the software development lifecycle.

Skills and Technologies: Could include: various technologies and roles, including HP UFT, HP Quality Center, Telerik, eggPlant, Selenium, TestingWhiz, TestComplete, Ranorex, Test Studio, along with manual testing activities.

QAT1

Role Description:	• Assists in software activities in defined span of control for the organization. • Tracks and monitors process and work product improvement opportunities. • Collects, reviews, and evaluates the project's required work products against standard work product templates. • Verifies that established software development and testing measurement procedures are used and all required metrics are collected • Coordinates work with others on team and across teams • Drafts report of observations, minor and major non-compliance issues. • Develops quality standards. • Monitors progress of action item resolution activities and ensures appropriate internal stakeholders are aware of pending deadlines. • Conducts training sessions with project teams on software quality review processes. • Researches problems before approaching Quality Assurance Lead for assistance. • Communicates accurate and useful status updates. • Manages and reports time spent on all work activities. • Ability to work in a team environment • Evaluates and tests new or modified software programs and software development procedures used to verify that programs function according to user requirements and conform to establishment guidelines: • Writes, revises, and verifies quality standards and test procedures for program design and product.. • Recommends program improvements or corrections to programmers. • Reviews computer operating log to identify program processing errors. • Enters instructions into computer to test program for validity of results, accuracy, reliability, and conformance to establishment standards. • Observes program test to detect error codes or interruption of program and corrects errors. • Identifies differences between establishment standards and user applications and suggests modifications to conform to standards. • Sets up tests at request of user to locate and correct program operating errors following installation of program. • Conducts compatibility tests with vendor-provided programs.

	• Monitors program performance after implementation to prevent reoccurrence of program operating problems and ensure efficiency of operation. Writes documentation to describe program evaluation, testing, and correction. • May evaluate proposed software or software enhancement for feasibility. • Strong communication skills; both written and spoken.

QAT2

Role Description:	All roles specified in QAT 1 plus the following: • Conducts software quality phase end review activities (work product and process) for each software project and produce the required quality assurance reports, as specified in the project's quality assurance plan. • Ensures the software development process followed by the project teams is compliant with approved tailored processes. • Reviews and checks project software development activities, and the associated internal tasks required by the agencies as employed by the project and specified in the project plan. • Prepares preliminary software quality audit package for review before conduct of audit. • Defines quality standards. • Monitors progress of action item resolution activity and ensure appropriate stakeholders are aware of pending deadlines. • Assists in managing and improving quality assurance team processes. • Reviews and understands project plans. • Determines time estimates and schedules for software quality review work, and conducts reviews according to schedule. • Identifies and tracks issues, risks and action items affecting work of team. • Reports on progress of action item resolution and possible risk areas.

QAT3

Role Description:	All roles specified in QAT 2 plus the following: • Reviews and checks project software development activities and the associated internal tasks required as employed by the project and specified in the project plan. • Compares actual project procedures to the specified standards, procedures, and, if required, specific 3rd party contractual requirements. • Performs detailed reviews of interim and final tasks as appropriate. • Ensures process improvement opportunities are reviewed by appropriate contact to identify training needs of the organization. • Performs or manages the required software quality phase end reviews of work products and processes for each software project and produces the required software quality reports, as specified in the project's software quality plan. • Develops, and manages short and long-term plans and schedules for organization wide software quality needs. • Balances workload with team capacity by managing the team's activities according to schedule and budgets. • Obtains feedback from project teams regarding the overall effectiveness of processes and procedures – Forwards to appropriate stakeholders and process owners. • Provides feedback to project teams regarding process/procedure improvement opportunities and other potential areas for improvement discovered during software quality activities. • Reports all software quality items revealed to be non-compliant.

	• Provides regular reports on the results of compliance reviews to the project team, project team leaders and management. Reports on progress on action item resolution and possible risk areas. • Develops options and recommendations to assist teams in resolving issues. • Ensures action items are addressed and closed based on agreed dates and activities. • Ensures that defined processes are followed. • Leads efforts in developing and facilitating implementation of team goals and metrics.

SYSTEM ADMINISTRATOR (SA)

The System Administrator (SA) is responsible for server back up and security, along with performance tuning and capacity planning. System Administrators should possess an understanding of network and distributed computing concepts. This is accomplished by working with the Systems Management Team Lead to understand the scope of services to be provided and assessing the impact they will have on the technical infrastructure.

Skills and Technologies: Could include various technologies and roles, including Windows Server, Unix Server, Linux Server, Storage Area Network (SAN), Active Directory (AD), Group Policies, Exchange, patches, MCSA, System Center Configuration Manager (SCCM), Vmware.

SA1

Role Description:	• Familiar with most basic system administrator tools and process; for example, can boot/shutdown a machine, add and remove user accounts, use back up programs, and maintain system database files. • Maintains the project servers. • Maintains the file and print capacity. • Ensures backups are performed as appropriate. • Acts as a front-line interface to users. • Accepts trouble reports and dispatches them to appropriate system administrators. • Writes scripts in a particular administrative language. • Communicates accurate and useful status updates. • Manages and reports time spent on all work activities. • Follows quality standards. • Works in a team environment. • Strong communication skills; both written and spoken

SA2

Role Description:	All roles specified in SA1 plus the following: • Responsible for operating and other system software. • Responsible for upgrading the operating and system software and keeping patches current. • Familiar with fundamental networking/distributed computing environment concepts. • Able to do minimal debugging and modification of programs. • Executes the disaster recovery/back up procedures and archiving procedures. • Manages security for servers. • Performs performance tuning, capacity planning, database administration, and fault management. • Provides tier two support of the technical infrastructure. • Coordinates efforts with vendors if/when tier three support is required. • Ensures high priority issues are resolved in a timely manner. • Identifies and reporting hardware problems. • Writes purchase justifications.

	• Understands basic routing concepts.
	• Identifies and tracks issues, risks, and action items.
	• Resolves and/or assists in resolving issues.
	• Reviews, prioritizes, and researches service requests.
	• Anticipates and resolves issues specific to the team.
	• Determines time estimates and schedule for work and resolves issues in a timely manner.

SA3

Role Description:	All roles specified in SA2 plus the following: • Solid understanding of networking/distributed computing environment concepts. • Understands principles of routing client/server programming. • Manages expectations at all levels: customers/end users, executive sponsors. • Ensures quality standards are followed. • Understands the business application of technical support and design in an application development environment. • Works with the various Infrastructure Teams and operations providers to identify the strategic direction of systems management activities. • Understands the design of consistent network-wide file system layouts. • Maintains strong relationships with employees and various tier two and three support groups. • Develops plans for disaster recovery/ back up and archiving. • Manages the daily operations of the systems management team to ensure service levels are being met. • Manages the Systems Management Team's support issues and backlogs. • Monitors the team's open backlog of support issues and re-assign issues as necessary to ensure they are closed per agreed upon service levels. • Acts as the first level of escalation for high priority support issues. • Functions as the liaison to the various support groups with whom the systems management team interfaces. • Develops the technical infrastructure maintenance strategy. • Manages the system management resources. • Acts as a system's management expert. • Analyzes, determines, and documents requirements in terms of system management needs and implement them. • Identifies, approves, and prioritizes team projects. • Manages a large site or network. • Recommends policies on system use and services.

SAP ARCHITECT (SAA)

The SAP Analyst (SAA) reviews, analyzes, and modifies the programming systems including encoding, testing, and debugging to support an organization's SAP applications. The SAP Analyst ensures that software can be completely integrated into the SAP system.

Skills and Technologies: This role addresses various SAP Modules and technologies such as : Human Resource Management (SAP HRM), Production Planning (SAP PP), Financial Supply Chain Management (SAP FSCM), Project System (SAP PS), Financial Accounting and Controlling (SAP FICO), etc.

SAA1

Role Description:	• Managing business analysis work or projects with distinct deliverables to a solution • Identifying and documenting business processes, issues, value levers, metrics, and capabilities • Collecting, organizing, and analyzing data • Completing analysis and documentation of as-is capabilities • Conducting interviews to gather business requirements • Conducting industry, competitive and State analyses (strategic, financial, operational), business case development, as well as market research for benchmarking • Supporting required SAP go-live activities, including conversion, support desk, site support, training delivery, logistics management, etc. • Performing activities related to project time tracking, work plan updates, status reporting, service metric reporting, and related project administration tasks • Assists with the development and maintenance of the SAP Program • Customizes and configures workflow to allow the integration of client/server applications. • Tests SAP layout to ensure the system is meeting corporate needs. • Has knowledge of commonly-used concepts, practices, and procedures within a particular field. • Relies on instructions and pre-established guidelines to perform the functions of the job. • Works under immediate supervision. • Tests SAP layout to ensure the system is meeting corporate needs. • Familiar with standard concepts, practices, and procedures within a particular field. • Relies on limited experience and judgment to plan and accomplish goals. • Performs a variety of tasks.

SAA2

Role Description:	All Roles specified in SAA1 plus the following: • Assists with the development and maintenance of the SAP program. • Customizes and configures workflow to allow the integration of client/server applications. • Familiar with a variety of the field's concepts, practices, and procedures. • Relies on extensive experience and judgment to plan and accomplish goals. • May lead and direct the work of others. A wide degree of creativity and latitude is expected.

SAP ARCHITECT (SPA)

The SAP Architect (SPA) across SAP Application Development, Service Delivery and Infrastructure to identify, research, discuss, design, and implement key architecture standards. Other responsibilities include: Research, design, document, build, and pilot prioritized topics for SAP standards.

Skills and Technologies: Could include: various technologies and roles, including various SAP Modules and technologies such as : Human Resource Management (SAP HRM), Production Planning (SAP PP), Financial Supply Chain Management (SAP FSCM), Project System (SAP PS), Financial Accounting and Controlling (SAP FICO), etc.

SPA1

Role Description:	• Individuals in this position have achieved a mastery level of experience that includes the capabilities of experienced SAP Developers and Technical Specialists who have

	the knowledge, skills, education and prior experience that involves the full and complete design of software solutions.
	• Communicates and documents designs both at a logical and physical level and work with other technical stakeholders as needed.
	• Reviews current technical infrastructure and design and to identify risks and opportunities.
	• Executes technical analysis recommendations to reduce risk and increase technical capabilities.
	• Performance tuning, including system optimization, table sizing, memory and CPU optimization, and utilization of systems in the portal, business intelligence and ERP environments.
	• Long-term support of SAP infrastructure, technologies, and functionality, including services to upgrade system configuration and functionality due to an SAP system or release upgrade.

SPA2

Role Description:	All roles specified in SPA1 plus the following:
	• Additional knowledge and experience.

SAP DEVELOPER (SAD)

The SAP Developer (SAD) is responsible for analysis, design, coding, component and assembly testing of all application code owned by the SAP Team. SAP Developers typically are involved in maintenance (including production support), enhancement and development work. SAP Developers have a range of skills and knowledge of the technologies used and applications supported by the SAP Team.
The SAP Developer reviews, analyzes, and modifies the programming systems including encoding, testing, and debugging to support an organization's SAP applications. The SAP Developer ensures that software can be completely integrated into the SAP system.

The SAP Developer works with the SAP Project Manager, Business Analyst, Architect and other SAP Team members on an as needed basis to ensure that design and code meets customer requirements.

Skills and Technologies: This role addresses various SAP Modules and technologies such as : Human Resource Management (SAP HRM), Production Planning (SAP PP), Financial Supply Chain Management (SAP FSCM), Project System (SAP PS), Financial Accounting and Controlling (SAP FICO), etc.

SAD1

Role Description:	• Code enhancement and development programs and/or required fixes to production problems using the functional and technical programming standards.
	• Test enhancement and development programs.
	• Participate in structured code reviews / walkthroughs.
	• Execute all required process steps.
	• Create and provide content for operational documentation to Technical Writers.
	• Utilize configuration management tools, design tools, debugging tools, and any other environment specific tools necessary to create, test, and implement an application.
	• Research problems before approaching the Team Lead or Business Analyst for assistance.
	• Limited functional knowledge.
	• Follow quality standards.
	• Support installation of application releases into production as directed.
	• Communicate accurate and useful status updates.

	• Ability to work in a team environment.
	• Complete assigned tasks.
	• Analyze and design enhancements, development programs, and/or required fixes to production problems.
	• Design applications to functional and technical programming standards.
	• Work with Architects to gather and interpret user requirements into design specifications.
	• Develop system specifications and interfaces.
	• Determine time estimates and schedule for work.
	• Moderate functional and process knowledge.
	• Assist in managing and directing ERP Application Team processes.
	• Coordinate work with other software developers on Application Teams.
	• Assist Team Lead or Test Team Lead in monitoring estimated-time-to-complete (ETC) and actuals for assigned tasks.
	• Develop application designs in support of the systems specifications and interfaces, perhaps in conjunction with application or technical architects.
	• Operating System expertise sufficient to perform performance and tuning diagnostics.
	• Work with users to ensure that solutions meet business requirements.
	• Execution of all responsibilities with little direct supervision of Team Lead.
	• Generally aware of new developments in industry and process and has ability to apply them to work as appropriate.
	• Anticipate and resolve issues specific to the team.
	• Determine time estimates and schedule for own work and resolve issues in a timely manner.
	• Identify and track issues, risks and action items.
	• Strong communication skills; both written and spoken

SAD2

Role Description:	All roles specified in SAD1 plus the following:
	• Plan all required process steps.
	• Review and understand the Application Team's work plan.
	• Provide status of work to Team Lead.
	• Anticipate, identify, track and resolve issues and risks affecting own work and work of the Application Team.
	• Develop contingency plans as necessary.
	• Engage in ongoing process improvement.
	• Detailed functional and process knowledge.
	• Utilize deep modeling, design and coding skills.
	• Provide expertise in one or more database environments.

SAD3

Role Description:	All roles in SAD2 plus the following:
	• Converts scientific, engineering, and other technical problem formulations to formats that can be processed by computer.
	• Resolves symbolic formulations, prepares flowcharts and block diagrams, and encodes resultant equations for processing by applying extensive knowledge of branch of science, engineering, or advanced mathematics, such as differential equations or numerical analysis, and understanding of capabilities and limitations of computer.
	• Confers with other business and technical personnel to resolve problems of intent, inaccuracy, or feasibility of computer processing.

	• Works with necessary personnel to determine if modifications are necessary with interested personnel to determine necessity for modifications or enhancements. • Leverages excellent written and verbal communication skills to develop new business process and programming solutions as directed by SAP business and technical stakeholders. • May coordinate activities of Developers. • Proven track record of hands-on SAP technical design and code work within large complex systems. • Proven hands-on SAP technical work with a variety of SAP technologies. • Demonstrated technical expertise integrating a variety of diverse SAP technical environments and cross-platform technologies. • Proven experience mentoring and performing supervisory functions for technical teams. • Able to make SAP best practice recommendations based on past work.

SAP PROJECT MANAGER (SAPM)

The SAP Project Manager (SAPM) directs, controls, administers, and regulates an enhancement or development program. The Project Manager is the individual ultimately responsible to the agency. The Program Manager's primary responsibility is to drive the entire effort from start to finish. The Project Manager must ensure that the program is completed on schedule and that the final product meets the business, technical, and established quality requirements. The difference between the levels will depend on the size of the project, and the breadth and scope of the ERP project. The SAP Project Manager may be required to have current PMP or other similar certification.

Skills and Technologies: This role addresses various SAP Modules and technologies such as : Human Resource Management (SAP HRM), Production Planning (SAP PP), Financial Supply Chain Management (SAP FSCM), Project System (SAP PS), Financial Accounting and Controlling (SAP FICO), etc.

SAPM1

Role Description:	• Responsible for the development of estimates for the enhancement or development effort in planning, analysis, design, construction, testing, and implementation of SAP Systems. • Accountable for delivery of all work tasks identified in the program plan. • Responsible for the capture and reporting of required program management metrics. • Adjust and revise estimates when necessary. • Ensure all changes to scope follow processes and are documented. • Ensure new estimates are approved by the client and agreed upon. • Adjust and revise estimates when necessary. • Manage, and track the program progress against the program plan. • Monitor project milestones and phases to ensure the project is on schedule. Take corrective actions if a project begins to slip its schedule. • Prepares status reports on a periodic basis for program team, team leads, group leads, and program manager and appropriate stakeholders. • Plan, organize, prioritize, and manage multiple work efforts across application teams. • Develop the detailed program plan for the enhancement or development effort • Accountable for the final program management evaluation review with stakeholders for approval upon program completion. • Responsible to tailor and baseline all program templates.

	• Accountable to schedule or monitor status reviews, peer reviews, program management inspections, and software quality assurance work product and process reviews with the appropriate designated resources. • Notify team leads of project timelines, milestones, phases, work requests target dates, and approved executable work package. • Communicate and work with users and client as necessary. • Coordinate and present proposals to agencies as necessary. • Analyze and distribute reports on program metrics associated with work items related to improvement measures. • Ensure processes and activities are followed.

SAPM 2

Role Description:	All roles specified in SAPM1 plus the following: • Accountable for the approval and sign-off of the program plan with customer representatives, such as portfolio managers, and all affected program stakeholders. • Accountable for management of scope for the program and gaining agreement and approval of scope changes with customer representatives and affected stakeholders. • Build and maintain relationships with key stakeholders and customer representatives. • Direct work planning and scheduling design work. • Manage, and track the program progress against the program plan. • Serve as the primary point of contact for all program-related issues and resolution of issues. • Coordinate and present proposals to agencies as necessary. • Identify and manage program risk and develops risk mitigation strategies, track to closure. • Ensure team leads adjust and revise estimates when necessary. • Anticipate issues and proactively address them. Resolve conflicts with sensitivity and tact. • Coordinate the establishment of program standards and program specific procedures with team leads. • Responsible for project compliance with standards and procedures. • Responsible for the capture and reporting of required program management metrics. • Responsible to tailor and baseline all program templates. • Develop and facilitate achievement of program service commitments and performance metrics. • Ensure that tasks provide value and support the strategic direction of the program and meet service commitments; conduct reviews with agencies. • Accountable for the final program management evaluation review with stakeholders for approval upon program completion. • Communicate effectively with customers and software / hardware suppliers supporting the State as appropriate. • Identify and track issues. • Balance workload with program members' capacity. • Communicate to team members how their work assignments relate to and help achieve program objectives. • Plan program specific training and orientation needs. • Manages, coordinates, and establishes priorities for complete SAP life-cycle of projects including the planning, design, programming, testing, and implementation of SAP solutions designed to meet requirements • Designs SAP project plans, which identify needs and define major tasks and milestones, based on scope, resources, budget, and personnel.

TECH WRITER (TW)

The Technical Writer (TW) develops and maintains user and technical documentation and project process documentation for Application Teams. Technical Writer understands the user's view of applications and/or technology and is able to put procedures into logical sequence. The experienced Technical Writer provides expertise on technical concepts of applications and/or user groups and structuring procedures in a logical sequence, due to a broad understanding of the applications within their Tower.

Skills and Technologies: Could Include various technologies and roles, including development and maintenance of user and technical documentation and project process documentation for Application Teams.

TW1

Role Description:	• Develops, enhances, and maintains user documentation for multiple applications including documentation required for the operations provider. • Develops on-line source documentation as appropriate. • Maintains documentation libraries and subscription lists. • Identifies, creates, revises, and maintains documentation and templates needed by the Application Teams. • Ensures appropriate control access/use of documentation materials. • Maintains application and user documentation. • Ensures messages and terminology is consistent across all written materials. • Researches and completes documentation service requests. • Communicates and works with customers and other client telecommunications personnel as necessary. • Works with Application Team members to enhance their understanding of end-user and technical documentation. • Communicates accurate and useful status updates. • Reviews and prioritizes documentation service requests. • Determines procedures for use of on-line documentation tools and version control documentation as appropriate. • Assists or guides other Technical Writer as needed to develop and maintain user and technical documentation for their assigned applications. • Educates both business and technical groups on the essential need for developing and using standard documentation for all processes. • Researches problems before approaching Lead Technical Writer or Team Lead for assistance. • Assist the Application Team Lead in monitoring budget by providing estimated-time-to-complete and actuals for assigned tasks. • Identifies and makes recommendations around documentation and templates needed by the Application Teams. • Works with users and other personnel to ensure that the solutions meet business requirements.

TW2

Role Description:	All roles specified in TW1 plus the following: • Identifies and initiates continuous improvement opportunities. • Directs the development of accurate estimates for documentation requests/activities as required

	• Develops options and recommendations to assist documentation team members in resolving issues.
	• Leads efforts in developing and facilitating implementation of the Documentation team goals and metrics.
	• Develops workable, practical, measurable work plans defining activities, schedules and tasks with Team Leads and the Lead Technical Writer
	• Reviews and understands the Application Teams work plan.
	• Anticipates and resolves issues specific to the team.
	• Determines time estimates and schedule for own work and resolve issues in a timely manner.
	• Reviews and approves procedures for use of on-line documentation tools as appropriate.
	• Identifies business and technical documentation needs not currently addressed.
	• Manages junior team members.
	• Owns documentation libraries and subscription lists.
	• Promotes the need for developing and using standard documentation for all processes within the organization.
	• Performs detailed reviews of interim and final tasks as appropriate.
	• Oversees processing of service requests.
	• Manages, deploys, and schedules Technical Writer activities.
	• Develops and manages short and long-term documentation plans and schedules.
	• Understands work requests/needs within Application Teams
	• Manages the accomplishment of delivery metrics in support of contractual obligations in the areas of service delivery, on time performance.
	• Works with Team Leads and Group Leads to set documentation goals.
	• Ensures work remains within the agreed project scope.
	• Coordinates work with other Lead Technical Writers as appropriate.
	• Coordinates and procures the required skills and techniques required by the Application Teams for documentation needs.
	• Communicates accurate and useful status reports to Group Lead and other management on a timely basis.
	• Anticipates, identifies, tracks and resolves issues and risks affecting own work and work of the Application Team. Develop contingency plans as necessary.
	• Manages expectations of the Technical Writers' internal and external customers.
	• Defines documentation quality standards as needed.
	• Conducts post project reviews and quality assessments.
	• Ensures that defined processes are followed.
	• Communicates related improvement measures to the team.
	• Communicates clearly to Technical Writers their goals, organizational philosophies, and policies and procedures.

TELECOM ENGINEER (TE)

The Telecom Engineer (TE) configures and installs hardware, wiring, and specialized equipment according to local building and electrical codes. The Telecom Engineer may also be responsible for the end-to-end installation of cable, wiring, and related equipment. The Telecom Engineer typically works closely with facilities/construction managers and site-based project managers. The Telecom Engineer should be able to accurately estimate the time and materials needed for tasks assigned. It is not uncommon for the Telecom Engineer to supervise a team of people and coordinate activities with other construction teams.

Skills and Technologies: Could include: various technologies and roles, including Circuits, VOIP, CAT 5/6 cabling, Fiber Optic cabling, Coax cabling, PBX, Central Office (CO).

TE1

Role Description:	• Ensures proper connectivity from site-to-site and internal to facility. • Experience with CAT5/6, Romex, and similar cables/wiring. • Pulls cable and ensures adherence to all building codes. • Escalates construction and installation problems to the construction/integration manager, as needed. • Prepares all job-related paperwork. • Closes out work authorization when equipment is in service.

TE2

Role Description:	All roles specified in TE1 plus the following: • Inspects customer premises to ascertain available space for equipment installation • Determines the type and quantity of equipment that can be installed to provide requested communication facilities. • Creates floor plan of equipment arrangement for customer or architect approval. • Prepares cost estimate for equipment and installation and submit data to management for authorization to proceed. • Orders equipment and prepare installation specifications. • Monitors progress of installation to ensure facilities are ready on specified date. • Leads full integration teams and interact with large infrastructure teams. • Acts as telecommunications interface to outside vendors and construction manager. • Directs activities related to the selection and installation of telephone facilities and special equipment on premises to meet customer's communication requirements.

WEB DEVELOPER (WD)

Web Developer (WD) is responsible for designing, coding and modifying websites, from layout to function and according to a client's specifications, striving to create visually appealing sites that feature user-friendly design and clear navigation.

Skills and Technologies: Could include: various technologies and roles, including HTML, CSS, CSS3, UI, JavaScript, JQuery and API's, Web Services (REST, SOAP, etc.) and e-Commerce. Technologies including Microsoft SharePoint, Ektron, Drupal, Convio, and Kintera may be used for content design/development.

WD1

Role Description:	• Performs specialized programming and technical work for website and Internet development.

WD2

Role Description:	All roles specified in WD1 plus the following: • Performs advanced programming and technical development for website and Internet development.

ADMINISTRATIVE ASSISTANT (ADMIN)

The Administrative Assistant (ADMIN) supports an organization or department by performing administrative services.   Assists management with administrative tasks such as tracking and compiling information of interest. Prepares various reports detailing the administrative information handled by the position.   Reads and answers correspondence.   May handle confidential information.

ADMIN1

Role Description:	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

ADMIN2

Role Description:	All Roles specified in ADMIN1 plus the following: • Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. • Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

EXECUTIVE ADMINISTRATIVE ASSISTANT (EAA)

The Executive Administrative Assistant (EAA) supports an organization or department by performing administrative services.   Assists management with administrative tasks such as tracking and compiling information of interest.   Prepares various reports detailing the administrative information handled by the position.   Reads and answers correspondence.   May handle confidential information.

EAA1

Role Description:	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

EAA2

Role Description:	All Roles specified in EAA1 plus the following: • Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. • Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

GENERAL ADMINISTRATIVE SPECIALIST/ANALYST (GAS)

The General Administrative Specialist/Analyst (GAS) performs a variety of professional-level research, analytical, and administrative duties and studies of moderate complexity related to the business, technological, and operational activities of assigned functions, operations, programs, department, and/or division.   Supports administrative operations and activities including special projects, research studies, budget analysis, and other specialized functions.   Assists in identifying and resolving operational and administration issues; observes, gathers, compiles, verifies, analyzes, and correlates pertinent information, facts, and data; identifies alternative solutions or sound conclusions; and makes and assists in the implementation of recommendations.   Applies statistical methods of analysis and prediction; and prepares and presents comprehensive, technical, administrative, and financial reports, presentations, and other communications containing descriptive, analytical, and evaluative content including the preparation of recommendations based on findings.

GAS1

Role Description:	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

GAS2

Role Description:	All Roles specified in GAS1 plus the following: • Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. • Works under limited supervision with considerable latitude for the use of initiative and independent judgment.